U.S. DEPARTMENT OF COMMERCE
National Technical Information Service

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Final EIS/EIR Las Virgenes-Triunfo Malibu-Topanga Area Wide Facilities Plan
Volume II. Appendices

Environmental Protection Agency, San Francisco, Calif

1976

PB 273 525

Final
Las Virgenes-Triunfo
Malibu-Topanga

Volume II
Appendices

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Public hearings were held on November 17, 1976 at Malibu Elementary School Cafeteria, and November 18, 1976 at the Agoura High School Auditorium on the Draft EIS/EIR Las Virgenes-Triunfo-Malibu-Topanga Areawide Facilities Plan. Verbal Testimony, given by many area citizens was received at the public hearings, and are summarized below. If a citizen or spokesperson for a group or government agency also submitted a written comment (either the EIS/EIR Questionnaire, a formal letter, or both), then all comments from that person or agency are grouped together, with the written comment following the verbal testimony. Responses are likewise grouped after the comment of each person or agency.

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I

APPENDIX A

Public hearings were held on November 17, 1976 at Malibu Elementary School Cafeteria, and November 18, 1976 at the Agoura High School Auditorium on the Draft EIS/EIR Las Virgenes-Triunfo-Malibu-Topanga Areawide Facilities Plan. Verbal testimony, given by many area citizens was received at the public hearings, and are summarized below. If a citizen or spokesperson for a group or government agency also submitted a written comment (either the EIS/EIR Questionnaire, a formal letter, or both), then all comments from that person or agency are grouped together, with the written comment following the verbal testimony. Responses are likewise grouped after the comment of each person or agency.

Appendix A is organized as follows:

Verbal Testimony: Summary and Response

Verbal Testimony accompanied by Written Comments: Summary of Verbal Testimony and Response; and Written Comment and Response

Written Comments: Comment and Response

EIS/EIR Questionnaire: Comment and Response

Comments Requiring No Response
EPA Announcement, separating Calabasas Reclaimed Water Line and Solids HAndling from other elements of AWFP (May 13, 1977)

Verbal Testimony

III

Summary of Verbal Testimony of Richard D. Ducker, Monte Nido Property Owners Association

- Is year round discharge into Malibu Creek an assumption of Alternative 6 and 7?
- All alternatives being considered should be formalized in draft documents which are accessible to the public and subject to comment and public hearings before final documents are prepared.
- EPA has the power to prevent year round discharge into Malibu Creek or other similar streams if it chooses to do so.
- The Association will support alternative 4 if reuse and reclamation is the basis for which the plan is carried out.
- Man-made lakes or impoundments for use as a recreation lake, or fire fighting and fire prevention could be developed from effluent.

Response To Verbal Testimony

Concerns of year round discharge to Malibu Creek, among other alternatives, will be addressed in the Draft Addendum. This will permit further citizens participation to continue in the planning process for facilities in the study area.

Regulations regarding water quality are set by RWQCB. EPA responds to public concerns and reviews the problems as stated in the EIS/EIR. Due to the local concerns and suggestions presented in public hearings of the Draft EIS/EIR, further alternatives for effluent disposal are being studied and will be addressed in the Draft Addendum.

Summary of Verbal Testimony of Timothy Vickers, Topanga Association for a Scenic Community and Topanga Community Improvement Association

- The study should have had better cost analysis and more cost data.
- The report should have had more detail in the Topanga area, the Association felt that there was not enough investigation into our "peculiar neighborhood life style".
- Sewers and trunkline system are not suitable for Topanga.
- There should be more detail on on-site sewer systems.

Response To Verbal Testimony

These concerns will be addressed in the Draft Addendum as the Topanga area is not included in this document.

Summary of Verbal Testimony of Mathias Vanos

a. A study should be made of the use of private on-site sewage disposal systems.

b. Communities hooked-up to sewer pipe be required to receive back the water they generate.

c. EPA get involved in testing, approving or developing a device such as clivus multrum.

Response to Verbal Testimony

The Draft Addendum will address various alternatives, such as those Mr. Vanos mentioned, to provide for sanitary disposal facilities in the study area. It should be noted that the Calabasas Reclaimed Water Line recognizes the goal of Comment B.

Summary of Verbal Testimony of John Guildmann

- Document too lengthy, not very readable and not readily available.

Response to Verbal Testimony

An EIS/EIR is a full disclosure document that must study or point out the cause and effect relationship of a proposed project. With all the possible variables in a project, and with the NEPA and CEQA regulations, the document can become lengthy in order to satisfy the requirements of the law.

Both the AWFP and the Draft EIS/EIR were available to the public for review at public libraries within the study area, from EPA and at the LVMWD offices.

Summary of Verbal Testimony of Jock De Swart

- Alternatives that should be considered are infiltration, mechanical removal, destruction and decomposition of the sewage; clivus multrum toilet should be studied.
- Develop approval systems for governments to approve facilities such as the clivus multrum.
- On-site systems should be encouraged.

Response To Verbal Comment

Alternative on-site disposal systems will be addressed in the Draft Addendum.

VIII

Summary of Verbal Testimony of Margot Feurer

- How will the effect of discharge to Malibu Creek and lagoon be measured if parameters of existing water quality have not been established?
- The Angeles Chapter of the Sierra Club stands in support of water reclamation, sludge farms and in opposition to creek discharge, unless it has tertiary treatment, and in opposition to an ocean outfall.
- An alternative location of a plant in the immediate area of Triunfo's growth pressure would relieve the immediate pressures on Las Virgenes, so that new and permanent arrangements for use of reclaimed water can be consummated without the pressure of Triunfo.
- Subsurface injection not dealt with.
- A new EIS must be written to address a wider range of alternatives than the present EIS contains.
- Tertiary treatment should be addressed.

Response to Verbal Testimony

The comments on the effects of effluent disposal, treatment plant locations and treatment systems will be addressed in the Draft Addendum.

Verbal Testimony and Written Comments

Summary of Verbal Testimony of Catherine Cappel

- o As a participant of the original Citizens Advisory Committee in 1974, Ms. Cappel felt that the District should use wastewater effluent to create recreational lakes.
- o EIS/EIR did not even begin to approach an alternative that approximates what the original Citizens Committee suggested in 1974.
- o Ms. Cappel would like the EPA to make LVMWD reassess their alternatives for effluent disposal and come up with recreational lakes or the creation of green belts as alternatives.

(HE-132) 15

LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: C. Coppel

ADDRESS: 1950 McKain Calabasas

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. ☒ Severe ☐ Moderate ☐ Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? ☐ Alt. 1 ☐ Alt. 2 ☐ Alt. 3 ☐ Alt. 4 ☐ No Project

   Other: None of the alternatives is adequate nor do they begin to approach the alternatives [illegible] by the [illegible] Comm.

3. Which solids handling disposal method do you prefer?

   ☒ Sludge Farm ☐ Landfill ☐ No Project

   Other: + Fertilizer Commercial Sales

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? ☐ Alt. 1 ☐ Alt. 2 ☐ Alt. 3 ☐ Alt. 4 ☐ Alt. 5 ☐ Alt. 6

   ☒ No Project Other:

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies? Recreational use lakes created by storage of reclaimed H_2O which could also be used for fire prevention in outlying areas. Irrigation of green belts and fire breaks.

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

2<

NOV 18 1976

The original Citizens' Comm. which was selected by the LVMWD officers in '74, to review the sewage system problems & make recommendations for improving it — came up with nearly unanimous approval of a system of recreational & fire protection uses for the effluent. As soon as the staff realized the group was in support of a re-use of effluent rather than discharge to Malibu Creek, the citizen's comm. was disbanded, (against the wishes of the citizens' comm.). It was nearly 2 years before another citizen's comm. was formed to review the finished EIS-EIR., and at that time the LVMWD asked different citizens to participate in the 2nd group. I resent the lack of continuous citizen input in the finished plan, and feel it was intentional on the part of the distric officers & staff. The finished document do not make any reference to the alternative selected by the 1st citizens' group.

Response to Catherine Cappel
Verbal Testimony and EIS/EIR Questionnaire (#15)

Response to Verbal Testimony:

A reassessment of alternatives which will include the use of recreational lakes for effluent disposal will be addressed in the Draft Addendum.

Response to Questionnaire (#15)

Originally, the AWFP proposal was to recommend to the Board of Directors of LVMWD reliable methods of effluent disposal such as spray irrigation, creek discharge, etc. The recommendations were to be in agreement with State guidelines for disposal practices. In the intervening years, however, the state guidelines have been modified and, at this time, recreational lakes to hold effluent is being considered as a method for reliable effluent disposal. The Draft Addendum will address the possibility of recreational lakes.

Summary of Verbal Testimony of David Ross

- EIS/EIR biased toward Los Angeles County.
- Oak Park Citizens are concerned with having sufficient capacity to meet the needs of the community.
- EIS indicates commitments for capacity will bring plant requirements up to 12 mgd.
- A good deal of information was obtained from the Ventura - Santa Barbara County Air Pollution Control District which are not members of the South Coast APCD.
- Insurance companies do not rate Oak Park as a critical fire hazard area, yet the EIS discusses fire hazards within the area.
- Ventura County association of Governments, VCAG, is seeking qualifications as an area planning organization in place of SCAG.
- Oak Park needs their own schools, in order to provide schools, the community would need to develop according to its Master Plan which would allow the necessary population base and assessed valuation base for schools.
- The study of effluents disinfected by the ozone process should be studied.
- Nothing mentioned about the possibility of recovering methane gas in sludge processing.
- Lack of Ventura County orientation.

(HE-132) 16

LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: David Ross

ADDRESS: 6477 E. Bayberry St, Oak Park, Agoura, CA [illegible]

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. X Severe ___ Moderate ___ Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? 1 Alt. 1 2 Alt. 2
   ___ Alt. 3 ___ Alt. 4 ___ No Project
   Other: (over)

3. Which solids handling disposal method do you prefer?
   ___ Sludge Farm ___ Landfill ___ No Project
   Other: unknown

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? ___ Alt. 1 ___ Alt. 2
   ___ Alt. 3 ___ Alt. 4 ___ Alt. 5 ___ Alt. 6
   ___ No Project Other: no impact on me

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies?

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

NOV 18 1976

1, Adequate schools in community (Oak Park) depend upon continued regulated growth of the community. Failure to solve the Tapia WRF effluent disposal problem will inhibit that growth.

2. As a taxpayer, alternative #1 is most attractive as having the least direct financial impact upon me; further, it would permit the greatest flexibility in modifying the operations and capacity of the Tapia WRF. On the other hand, alternative #2 would supply usable irrigation water to vast agriculture operations in Ventura Co, which will be adversely impacted by major increases in the cost of California Aquaduct (MWD) water supplies (to be caused by renegotiation of contracts for electrical energy for pumping in the early 1980's).

Response To Verbal Testimony and EIS/EIR Questionnaire (#16)

- The EIS describes the growth accommodation possibilities of the plant at 8 mgd. This is the grant eligible design capacity of the plant.

- Any further expansion of Tapia WRF, under present regulations and guidelines of EPA and SWRCB, would require LVMWD/TCSD to fund 100 percent of the expansion.

- There are no indicated commitments of a plant capacity at 12 mgd. The AWFP considered the possibilities of Topanga and Malibu being serviced by Tapia WRF which would then necessitate the expansion of Tapia. The expansion of the Tapia WRF could be considered under these conditions because the Clean Water Grant funds would be used to provide service to Malibu and Topanga which have not received previous Clean Water Grant funds.

- Data received from Ventura County APCD does indicate that the area has had air quality problems and has exceeded State and Federal requirements for photo chemical oxidents. It should further be pointed out that air quality is a regional problem and that development in the upstream air shed can influence downstream air quality. Therefore, this analysis has included a great deal of information from Ventura County APCD as well as the Southern California AQMD.

- Fire hazards have been described in the EIS in order to consider the secondary growth accommodation issues. In developed residential areas, the inherent characteristics of the development reduces the fire hazards and this is recognized.

- VCAG was recently denied the ability to act as a A-95 review board for federally funded projects. This is still handled by SCAG.

- In June of 1977, the Supreme Court upheld the Serrano case indicating that by 1980 alternative means of funding schools, which may involve property tax assessment reforms, will be available for schools in California. Thus, Oak Park will not necessarily be dependent upon an existing assessed valuation base in order to fund schools in the area.

- The ozone process of disinfection had been considered in the initial studies and preparation of the AWFP.

  However, the 5 different alternatives with ozone processing systems were substantially higher in capital costs, operation and maintenance cost than chlorination.

- So noted. In order to recover methane gas from a sludge processing facility, the plant must be technically and mechanically suited to this purpose. The Tapia plant is not suited to this type of treatment. To become so it would involve extensive changes and a complete reworking of the plant to accommodate a recovery of methane gas.

Summary of Verbal Testimony of Giles Welch

- Area wide sewer would be a tragic mistake, and enlarging the Tapia Park Plant is also a tragic mistake
- Effluent discharge into the creek should be corrected with tertiary treatment or stopped completely and use septic tanks.

(HE-132) 18

LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: Giles Welch

ADDRESS: 115 Malibu Colony Malibu Ca 90265

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. [✓ Severe] ____ Moderate ____ Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? ____ Alt. 1 ____ Alt. 2 ____ Alt. 3 ____ Alt. 4 [✓ No Project]
Other: ____

3. Which solids handling disposal method do you prefer? ____ Sludge Farm ____ Landfill [✓ No Project]
Other: ____

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? ____ Alt. 1 ____ Alt. 2 ____ Alt. 3 ____ Alt. 4 ____ Alt. 5 ____ Alt. 6 [✓ No Project] Other: SEPTIC TANKS

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies? SEPTIC TANKS — SO NO CONSTRUCTION OF MASSIVE PROJECTS THUS NO SECONDARY IMPACTS

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

NO CREEK DUMPING BY (VMWD)!

[illegible]

11<

Response to Giles Welch
Verbal Testimony and EIS/EIR Questionnaire (#18)

The AWFP is not necessarily an area wide sewering plan; other alternative means of providing sanitary sewering facilities (such as tertiary treatment, septic tank, small treatment plants, etc.) will be covered in the Draft Addendum.

Summary of Verbal Testimony Dr. Jim I. Myerly

- The alternatives offered were based upon large scale "pipeline vision" rather than on-site compact waste disposal systems.
- Dr. Myerly felt that superficial attention was given to the large number of septic tanks that work well in the area.
- The growth inducing impact of the area wide sewer system was also handled superficially.
- What will be the impact of new coastal legislation and the Coastal Commission that will have jurisdiction over LVMWD facilities?
- Asked the public hearings be continued until all alternatives are considered.

LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: Jim I. Myerly M.D.

ADDRESS: 3501 Cross Creek Lane, Malibu, Calif 90265

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. _X_ Severe ___ Moderate ___ Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? ___ Alt. 1 ___ Alt. 2 ___ Alt. 3 ___ Alt. 4 _X_ No Project
   Other: ___

3. Which solids handling disposal method do you prefer?
   ___ Sludge Farm ___ Landfill ___ No Project
   Other: ___

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? ___ Alt. 1 ___ Alt. 2 ___ Alt. 3 ___ Alt. 4 ___ Alt. 5 ___ Alt. 6 _X_ No Project Other: ___

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies? Its not required with no plan

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

NOV 17 1976

Impact

I live here. Any alternative proposed other than No Project, will cause too great an adverse growth inducing impact on a major portion of the Santa Monica Mountains Area whether its a large alternative in Los Virgenes or Malibu.

Response To Jim I. Myerly, MD
Verbal Testimony and EIS/EIR Questionnaire (#26)

Response To Verbal Testimony

Local on-site disposal systems for the Malibu-Topanga areas and the growth accommodating impact of this and other systems will be considered in the Draft Addendum. Coastal Commission decisions that could affect the study area will be included in the Draft Addendum, as appropriate.

Response To Written Testimony (#26)

The Tapia treatment plant was originally designed to be constructed in phases. At the present time the Tapia treatment plant has a designed hydraulic capacity of 8 mgd; however, the solids handling capability is currently designed for 4 mgd.

The present plant was constructed with funds from a Clean Water grant. At this time the project now being considered is to bring the plant up to its full 8 mgd design capacity.

Available sewage treatment capacity is not considered growth inducing; rather, it is growth accommodating. Prior to construction of any expansion components of the Tapia WRF, LVMWD/TCSD will be required by EPA to seek adoption of mitigation measures from appropriate agencies and entities empowered to implement such measures.

Summary of Verbal Testimony of Norm Hauret, County of Los Angeles, Department of Health Services

Mr. Hauret's verbal testimony is a duplication of the following written comments; thus, the verbal testimony is not summarized. A response follows the written testimony.

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November 17, 1976

United States Environmental Protection Agency
Region IX
100 California Street
San Francisco, California 94111

ATTENTION: PAUL DE FALCO, JR.
Regional Administrator

SUBJECT: DRAFT EIS/EIR, LAS VIRGENES TRIUMFO, MALIBU-TOPANGA AREA WIDE FACILITIES PLAN

Thank you for the opportunity to review the subject report. The following comments are offered for your consideration:

Chapter 3 - Project Alternatives

Section 3.2.6 - Alternatives 6 and 7 should be included and discussed in the EIS/EIR. We agree with the EIS statement, "Additionally, there still remain unresolved questions of viral hazards of discharge of secondary treatment effluent into Malibu Creek since body-contact recreation use may occur".

Section 3.4 and 3.5, Malibu and Topanga - It is our understanding that the Facilities Plan would identify preferred alternatives and that the preferred alternatives' environmental reports would be discussed in specificity in the EIS. In our opinion, this has not been done.

Chapter 4 - District Impacts of Alternatives

For each alternative a separate section on "Environmental Health" impacts should be established. In each instance, then, a thorough discussion of health concerns should be made. This includes Section 4.4 on wintertime discharge to Malibu Creek. Furthermore, each alternative should be evaluated in terms of proliferation and control of undesirable aquatic insects and vegetation.

The section on land disposal (Section 4.1.4) expresses concern of "potential exposure of recreational water contact users to pathogens within the water" if there were reclaimed water runoff into the creek. We agree with this statement and believe it applies also to wintertime and/or all year discharge to the creek.

Chapter 7

Table 67, "Mitigation measures for Direct Operation Impacts". Impacts numbered 1,3,4,11,13, as well as 8,9, and 10, all have health considerations which should be discussed.

It is the opinion of this Department that maximum irrigation use of the Tapia WRF effluent should be made. An ocean outfall, or stream discharge with adequate tertiary treatment, would be the best methods of excess effluent disposal.

Very truly yours,

Norman F. Hauret
NORMAN F. HAURET
Director, Consumer &
Environmental Protection
Department of Health Services

NFH:ELS:avd

Response To County of Los Angeles, Department of Health Services
Verbal Testimony and Written Comment (#32)

Your comments concerning effluent disposal and facilities plans for the Malibu/Topanga areas have been noted and will be included/discussed in the Draft Addendum.

Summary of Verbal Testimony of Albert Linnick

- Report and source documents contain no 1976 data and limited 1975 data.
- Alternatives offered in the report are identical to plans offered in the past. No new ideas.
- Why is the plant allowed to increase to 8 mgd when it cannot handle the solids?
- Has anyone investigated the possibility of piping wastewater from Calabasas to Pierce College?
- What happened to virus studies and the Pomona study?
- Tapia plant located in the wrong place.
- Alternatives for Malibu could include: dual reclamation systems, form development plan for spray irrigation, injection irrigation systems, modern technology to regulate showers and toilets, self-contained toilet systems, and small local treatment plant.

At the Public Hearing, Mr. Linnick submitted written testimony in addition to his verbal comments and the EIS/EIR Questionnaire. The written testimony is included herein. Since some of the written concerns are analogous to the prior verbal testimony, the responses following the written comments refer to those issues not discussed and responded to in the verbal testimony.

(HE-132) 36

LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: ALBERT LINNICK

ADDRESS: 23944 MALIBU RD MALIBU

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. _X_ Severe ______ Moderate ______ Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? ______ Alt. 1 ______ Alt. 2 ______ Alt. 3 ______ Alt. 4 ______ No Project
   Other: LAND DISPOSAL WITH DUAL RECLAMATION SYSTEMS

3. Which solids handling disposal method do you prefer? ______ Sludge Farm _X_ Landfill ______ No Project
   Other: ______

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? ______ Alt. 1 ______ Alt. 2 ______ Alt. 3 ______ Alt. 4 ______ Alt. 5 ______ Alt. 6 ______ No Project Other: LOCAL TREATMENT PLANTS & SEPTIC ~~TA~~ SYSTEMS

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies?
   SEE LETTER

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

Response to Albert Linnick
Verbal Testimony, Written Comment (Exhibit 8), and EIS/EIR Questionnaire (#36)

Response to Verbal Testimony and EIS/EIR Questionnaire (#36)

The best and most up-to-date available data was used for the report.

Clean Water Funds were granted to LVMWD to build a facility that could accommodate up to 8 mgd of sewage. Solids handling facilities for the plant were limited to 4 mgd in order to allow for further consideration of alternative sludge handling processes. It was hoped that by keeping the plant to 4 mgd (although it is funded to 8 mgd), new technologies to process and dispose of sludge would be available when population pressures caused the plant to actually process its allotted amount of 8 mgd. The AWFP is a process through which several alternatives for sludge disposal are examined, see pages 3-7 thru 3-14 for these alternatives.

See the Calabasas Reclaimed Water Line, pages 3-1 thru 3-6. The possibility exists to continue the line to Pierce College, just as the possibility exists to have cities like Hidden Hills tie into the reclaimed water line system.

The suggested alternatives discussed in the testimony will be addressed in the Draft Addendum.

Response to Additional Written Comment (Exhibit 8)

Page 2

- There is no reference on Page 1-1 of septic tank systems in the Malibu/Topanga area. Page ii does contain a reference to the septic tanks and their potential health hazard in the area. The source of that statement, as indicated in the EIS/EIR, is the Los Angeles County Health Department.
- There is no data available to make a comparison of chemical content in all Malibu watershed areas and Malibu Creek, Lagoon and Surfriders Beach.
- LVMWD is still disposing of effluent in Malibu Creek during and immediately after periods of wet weather, thus the temperature change cannot be indicative of LVMWD disposal methods.

- Currently, soil testing is being conducted to determine infiltration rates and soil capacities for the solids handling sites. Tests for spray irrigation sites will be conducted at a later date.

Page 3

- LVMWD has developed information regarding current spray application rates for spray fields, such as the Claretian Seminary. The average daily rate of application is 0.8 inches per acre per day. At the Malibu Creek State Park site (prior to acquisition) the average daily rate was 0.42 inches per acre per day.

- The report assumes the worst possible soil conditions for spray irrigation, i.e., the permeability of .3. Therefore, soils with better permeability can accept more effluent. The level of detail for this stage of planning does not allow testing for soil permeability of all possible spray irrigation sites.

Page 4

- Spray fields that are currently being used to dispose of effluent from Tapia are listed on page 2-234 of the Draft EIS/EIR. Available spray fields will be addressed in the Draft Addendum.

- The ecological and biological significance of Malibu Creek and Lagoon will be addressed more thoroughly in the Draft Addendum.

- An alternative of building a treatment plant in the vicinity of Conejo Creek or the Triunfo District will be addressed in the Draft Addendum.

Page 5

- The work continuously should not be used. Instead, Order 76-27 specifically states that discharge can occur: 1) from mid-November to mid-March for flows in excess of that which cannot be waste sprayed, or reclaimed for beneficial use; and 2) during and immediately after periods of rain when spray disposal areas are saturated and will not absorb additional water.

Page 6

- It was Dr. Laurence H. Frommhagen that testified on November, 1975 as to the beneficial flushing abilities of effluent in Malibu Creek.

- The Pomona Study, released in February of 1977, concluded that a direct filtration system or a carbon absorption system proved more cost-effective for treating effluent that is to be disinfected and discharged into unrestricted recreational impoundments than Title 22 requirements. Title 22 requires that coagulation, flocculation, sedimentation, filtration and disinfection take place before discharging effluent into recreational impoundments. This study will be utilized in the Draft Addendum during the discussion of effluent discharge.

- The District conducted a Radioactive Tracer Study to determine the impact of released nutrients upon the flora of the creek. The results indicate that natural nutrients (fertilizer from agricultural areas, animal wastes, natural nutrients in the soil) are absorbed by the algae to a certain saturation point. Beyond that point, all nutrients flow into the ocean, and are dispersed.

Summary of Verbal Testimonay of Bob Mann, Chairman LVWMD Citizens Committee

The verbal testimony is a summarization of the concerns expressed in the following written comment. A response follows the written comments.

(HE-132)45

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REGIONAL HEARING CLERK

NOV 29 1976

REGION IX

29318 Quail Run Drive
Agoura CA 91301
November 27, 1976

Hearing Officer
HE 132
Environmental Protection Agency
Region IX
100 California Street
San Francisco CA 94111

Dear Sir:

Attached are the comments of the Las Virgenes Municipal Water District's Citizens Committee pertaining to the EIS/EIR on the LVMWD's Arewide Facilities Plan, including the testimony given at the November 18 public hearing.

Sincerely,

Robert A. Mann

Robert A. Mann, Chairmen
LVMWD Citizens Committee

LVMWD Citizens Advisory Committee on Sanitation - Statement to the U.S. EPA and the State of California November 17 and 18, 1976

While the Las Virgenes Municipal Water District Citizens Committee on Sanitation will submit specific comments on the EIS/EIR for the Areawide Facilities Plan, the following represents our general position in regard the overall EIS/EIR.

1. The EIS/EIR does not fulfill the EPA requirements for EIS's because it is not clear and concise nor does it include all the facts necessary to permit independent evaluation and appraisal of the beneficial and adverse environmental effects of alternative actions. Reference Section 6.304 EPA Rules and Regulations, Sub Part C-Content of Environmental Impact Statements.

2. The EIS/EIR does not address itself to the various alternatives of the Areawide Facilities Plan. This and other deficiencies reflect on the credibility of the document.

3. All potential alternatives for effluent disposal and beneficial uses of the effluent are not delineated.

4. The EIS/EIR fails to provide the accurate, up-to-date information necessary to properly evaluate the presented alternatives. Some of the reference data has not been updated for 12 years.

5. The EIS/EIR completely ignores the substantial possibility of an adverse impact upon the unique ecology of this area due to the economics involved in expansion under the implementation of an Areawide Facilities Plan. The area is already overburdened with taxes and assessments. Any increase in that burden could

result in land development projects designed solely to escape financial loss and, thereby, be devastating to the environment. Zoning and other obstacles to prevent such development could result in area bankruptcy.

6. The EIS/EIR is confusing as to the relationship inferred by the inclusion of the Malibu and Topanga areas in the Areawide Facilities Plan. It does not state how the Las Virgenes Municipal Water District, an entity which has no authority to function in either Malibu or Topanga, can act on their behalf. If this is merely a device to study the Malibu-Topanga sewage problem, it should be clearly identified as such, and separated from any possible inclusion in the LVMWD plan.

CONCLUSION

Due to the fact that the public has not had proper continuity of participation in the ongoing planning process, and because of the irregular nature of the procedure in which there are no alternatives provided to the Areawide Facilities Plan it is necessary that a revised draft of the EIS/EIR be prepared and another public hearing scheduled for public comment.

Robert A Mann

Robert A. Mann, Chairman
LVMWD Citizens Advisory Committee
on Sanitation

As a committee we have researched this EIS/EIR in depth and we unanimously agree with the above conclusions. Our detailed comments are appended.

Details in support of the statement of the LVMWD Citizen's Committee at the public hearing of November 18, 1976.

1. The alternatives presented in the EIS/EIR are purely conceptual and do not reflect coordination with other affected landowners and agencies. For example, two alternatives require the construction of a standby reservoir for sewage. The location shown for the standby reservoir is within the boundaries of the Malibu Creek State Park. Yet, when contacted by a member of this Committee the local representative of State Parks and Recreation denied any contact pertaining to such construction or use on state property.

2. The fact that the alternatives presented in the EIS/EIR are conceptual in nature precludes any meaningfull discussion of specific environmental impacts. Eight of the eleven long term unavoidable adverse impacts listed on pages 8-5 and 8-6 are qualified as 'possible', 'probable', and 'potential', while the remaining three lack substantiation or objectivity.

3. The EIS/EIR is written against an incomplete plan. The staff of the LVMWD has acknowledged that the outcome of the January hearings by Regional Water Quality on creek discharge standards will impact the viability of several alternatives. In addition, those alternatives presented do not cover all potential usage/disposal alternates.

4. No cost trade-off data has been presented. It is important to know the energy cost trade-off between supplying effluent to local golf courses and bringing fresh water through the state system from Oroville for the same purpose. A family of energy and cost curves relating to various fresh and effluent water quantities for agricultural, landscape and sanitary uses appears to be required.

5. The entire concept of taking sewage downhill to Tapia and pumping effluent back uphill for use or disposal north of the freeway is open to question. There is no discussion of alternative treatment plants and land disposal areas to accommodate the North Ranch and Metropolitan's new Oak Park developments. Triunfo County Sanitation District seems to be relegated to a role of supplier of sewage without opportunity to beneficially use the output of the Tapia Plant.

COMMENTS OF THE LVMWD CITIZENS COMMITTEE PERTAINING TO AWFP EIS/EIR SECTION 2.0- ENVIRONMENTAL SETTING.

Page 2-2, Section 2.2.1, second para. Oak Park should be included as an unincorporated community and Chatsworth, a part of the City of Los Angeles, dropped.

Page 2-13, Section 2.2.3. A discussion of seasonal variations in air pollution in the study area is significant and should be included. (Bland, W.R. "Seasonal Variations in Air Pollution in Los Angeles County" The Professional Geographer Volume XXVI, No. 3, August, 1974, 277-281.)

Page 2-14. The effect of development within the study area upon the air quality of the entire region should be explored in detail. The data referenced is 11 years old.

Page 2-15,16, Table 2. The data, covering the major and minor sources of the emission of pollutants, fails to include sewage treatment plants, holding areas, spray fields and leach trenches, which in the study area emit substantial olfactort irritants and pollutants. Data is required on these sources.

Figure 25. Both the 0% to 10% and the 10% to 20% slopes are keyed to the same color code in the map legend.

Page 2-46, last para. Add "a part of which has been designated as Areas of Special Biological Significance" after 'special coastal land habitat'. Designation is by the State Water Resources Board.

Page 2-47, Section 2.2.5, first para. The approved developments of over 12,000 units in Oak Park and the North Ranch area will produce a water runoff into Los Angeles county of significant magnitude to pose a severe flood and siltation threat to the lower Medea Valley and Malibu Lake. Further downstream the Malibu Civic Center sits on a flood plain which has flooded in the recent past. In addition, the third paragraph shows a need for a new data base.

Page 2-48, last para. The direction of flow of Calabasas Creek is from the northeast corner of the study area, not the northwest as stated.

Figure 27. No source is given for the flow figures cited.

Page 2-56, Table 19. Rindge Dam on Malibu Creek is not listed. Century Dam is now operated by the State of California. Westlake Reservoir was filled with State Project Water , not Colorado River water.

Page 2-67, fourth para. Substantiationof comments pertaining to septic tanks is required. As written we consider the statements editorial opinion.

Page 2-146, Section 2.2.10. The Topanga-Las Virgenes Resource Conservation District has compiled an extensive biological inventory of the flora and fauna of a major part of the study area. Its findings should be included in this section, at least by reference.

Figure 53. Reference the Los Angeles County Mulholland Scenic Corridor Citizens Advisory Committee Report as the source of the viewpoints shown in the Scenic Corridor.

Page 2-169, last para. Change title to California Coastal Act of 1976.

Page 2-172, Section 2.3.1, Resource Conservation Districts. Division 9 of the Public Resources Code does not authorize District participation in land use planning or pollution control except as a function of soil and water conservation or in research relating to the conservation of resources. The two cited functions should be deleted.

Page 2-192, Section 2.3.3, and Figure 64. Major inconsistencies exist between the Existing Land Use Map and the definition of the categories on the map listed on page 2-192. Some of these are:

1. The Hillrise and Oak Valley tracts of Agoura are shown as urban low density while Fountainwood and Lake Lindero are shown as urban high density. Yet all of these tracts are identical in having no undeveloped land with which to 'grow from within', the criteria for high density.

2. Westlake Country Club, an existing public golf course, is shown on the map as urban low density, not recreation.

3. The Calabasas Landfill, falling within the definition

of Open Space, is shown as Urban Low Density.

4. The planned limits of Oak Park reflect conditions of 1974, not the current plans.

5. Simi Parks and Recreation should be added to the map as it covers 3/4 of the TCSD area.

Closer correlation between the map color coding and the definitions is required, as well as updating to show existing development outlines.

Page 2-197, Figure 65. Why is there not a map of Urban Development Policy, 1970-1990, for Ventura County?

Page 2-199, Figure 66. Figure does not show the approved projected development of the Oak Park area.

Page 2-205. Only one park (Mae Boyer) is listed for Oak Park while two neighborhood parks and one regional park are now in the development stage and, per the Oak Park Master Plan, five more will be dedicated in the near future.

Page 2-211. No reference is made to Ventura County plans for Open Space.

Page 2-212, Section 2.3.5. With the exception of the Section title, no mention is made of the paleontological resources of the area. Numerous prolific sites exist in all parts of the study area and should be saved for both teaching purposes and public enjoyment. Discussion is required.

Page 2-217, Figure 69. Map does not show Kimberly Canyon Road as a major highway, yet it is the continuation of both Kanan and Pt. Dume Roads.

Page 2-218, Table 53. Table should consider Kanan Road, Triunfo Canyon Road to north of Ventura Freeway.

Page 2-219, Transportation Planning Efforts. The Kanan Road bridge over the Ventura Freeway should be considered as an existing traffic bottleneck.

Page 2-220. second para. The residential ambient noise levels referred to are not identifiable in Table 54.

Page 2-225, Figure 73. Westlake Water Co., Metropolitan Water Co., and Russell Valley Water District are not depicted.

Page 2-229, Figure 74. The Bell Canyon sewer line and the lines in the West Hills area are not trunk lines and should be deleted.

COMMENTS OF THE LVMWD CITIZENS COMMITTEE PERTAINING TO AWFP EIS/EIR, SECTION 3.0 - PROJECT ALTERNATIVES.

Page 3-1, Section 3.2. The difference between 'spray irrigation' and 'agricultural and landscape irrigation' is not adequately defined and creates some confusion as to how the effluent will be used. Recommend use of the term 'waste spraying'.

Figure 76. Photo shows Parkway Calabasas, not Ventura Freeway.

Figures 75, 77, 81, and 83. Background of maps is not readable.

Page 3-3. The proposed standby reservoir is located within the boundaries of Malibu Creek State Park and there is no indication that the state would allow such use within the confines of a State Park. State Parks personnel contacted by a member of our committee indicated that State Parks was never contacted concerning construction of a standby reservoir within the Park. Resolution of the question of availability of state land for the reservoir is critical to the viability of Alternatives 1 and 2.

Page 3-3, Alternative 2. This Alternative would put large flows of water through the scenic Hill Canyon Park in Thousand Oaks. Has the Thousand Oaks park planners been contacted concerning the possibility of increased flows through Hill Canyon?

Figure 81. Add acreages involved to the list of available lands.

Page 3-5. Alternative 5. The negative editorializing should be removed from this section.

Page 3-6, Alternatives 6 & 7. It should be clearly understood that selection of either of these two alternatives will require an EIR covering all material omitted from this one due to lack of detail.

GENERAL COMMENTS

The semantics used in this section are decidedly negative in context. All alternatives refer to a method of 'disposal'. Reclaimed water is a resource and, with the increasing costs of energy required to transport fresh water from the north, every effort should be made to utilize our reclaimed water in the areas of agricultural, landscape and industrial usage.

There is no discussion of alternative treatment plants and land disposal areas to accommodate sewage from the North Ranch and Metropolitan's new Oak Park developments. The need for spray fields and reclaimed water irrigation areas in the TCSD should be addressed.

This entire section is very weak. No consideration is given to-
(a) Concentration at the inland location of the Tapia WRF magnifies the problem of dispersal of the treated output, practically equal to the input. Excepting for ocean disposal almost the entire output volume of effluent must be pumped uphill for disposal. The alternative of satellite treatment plants closer to the freeway belt should be included.

(b) Calabasas Landfill is noted as the principal recipient of solids, but no discussion is presented relative to its lifespan.

(c) No consideration is given 'greenspace' fuel breaks as a disposal alternative. It was lightly referred to on page 2-162.

COMMENTS OF THE LVMWD CITIZENS COMMITTEE PERTAINING TO AWFP EIS/EIR SECTIONS 4.0 and 5.0- IMPACTS.

Page 4-13, first line. Of course the addition of 8mgd will increase flows. What is not discussed is the effect of the 8mgd on the stream channel.

Page 4-13. The 1975 Tapia annual averages for TDS and Chlorides exceed the recommended CRWQCB requirements for Conejo Creek discharge. What is the effect of this on this alternative?

Page 4-15. The entire subject of nutrients (algae proliferation in MUGU Lagoon and the receiving ocean waters) requires discussion.

Page 4-16, Oceanography. All things are relative, but is 8mgd a "small" amount? How much silt deposition can be expected in Mugu Lagoon from the increased flows in Conejo and Calleguas Creeks and what is the environmental impact of that amount of silt?

Page 4-18, Open Space, Parks and Recreation. Will or will not State Parks and Recreation allow construction of the standby reservoir within Malibu Creek State Park? If not, what is the impact on Alternatives 1 and 2?

Page 4-21, Topography. If the pipeline "for the most part" follows Malibu Canyon Road, where does it deviate and what are the construction impacts of that deviation?

Pages 4-21,22, Oceanography. There is no discussion of the impact of raw sewage discharge resulting from a plant upset.

Page 4-31, Geology and Seismicity. The first sentence states that the alternative has only a slight impact on the geology of the area. It would appear that the geology has a significant impact on the alternative. The Malibu Fault is classified as active and movement could crack or rupture the effluent pipeline. Where is the evaluation of this threat and discussion of design safety features for crossing the fault?

Page 4-45. The following statement is made:"This would mean disposing of approximately 51,400 gallons of slurry per day on 110 acres proposed for purchase (Claretville Farm)". Extended, this would mean the layering of an annual 1.12 pounds of dry weight solids per year on each square foot of land. How many years could the land assimalate that quantity? What would be the total effect of wet weather? A discussion is required of wind borne pathogens, as well as transmittal by bird, animal and insect.

Page 4-58, Table 61. Recapitulation of the figures for 1974-75 show 55,547 mg for 1974 and 54,714 for 1975, a decrease of 0.836 mg from one year to the next. Is this correct?

Page 5-7. Population projection figures show growth in LVMWD and TCSD exceeding the planned capacity of the Tapia Plant. Why, then, should any consideration be given to adding additional territory to an obviously overburdened facility? Where is the resultant effect explained?

Pages 5-21 to 5-30. No mention is made of the affect of sewage treatment upon air quality.

COMMENTS OF THE LVMWD CITIZENS COMMITTEE PERTAINING TO EIS/EIR SECTION 8.0- UNAVOIDABLE ADVERSE IMPACTS

Page 8-1. Certain statements in Section 8.1 represent specious arguments, such as the words "-- it is neither appropriate or possible at this stage---to develop a listing of unavoidable adverse impacts--" and "-- it would be premature to xxxx suggest that even a general list of unavoidable adverse impacts would be conclusive at this point." Compare that with the positive statements, on the affirmative side, appearing in the last two paragraphs of page 7-2, the attendent Tables 66 and 67, and in Section 4.0. The latter discusses impacts at length and it is but a short step from this research to identification of unavoidable adverse impacts, a mandatory requirement of Section 15143 (b) of the state Public Resources Code.

Page 8-3. In the last two paragraphs, only (treatment plant) site-related construction disruption is mentioned. There is no discussion of the disruptions that will occur with the hooking up of all of Malibu to a new construction sewer system. Nor is it recognized that sewer collectors in Topanga will not follow roads, but stream beds for positive gravity flow, thus impacting areas other than streets or utility corridors.

Page 8-5, Item 1. No cost-benefit analysis has been presented on the energy savings possible by using the effluent in place of northern California water in agricultural, landscape, and certain sanitation uses. An overall energy use increase has not been proven with these alternatives.

Page 8-5, Item 2. The commitment of land is not necessarily an unavoidable adverse impact. The reference to loss of revenues is inappropriate as this is an environmental, not economic, impact report. Environmentally, the purchase of land for spray disposal of effluent could very well be classed as beneficial due to its increase, through growth, of the oxygen output of the plant community in this important airshed.

Page 8-5, Item 3. The "potential erosion of unlined stream banks--" has not been demonstrated here or in Section 4.0 to be an unavoidable adverse impact.

Page 8-5, Item 4. Conflicting criteria (page 4-3) from the Regional Water Quality Control Board and the LA Department of Water and Power make it difficult to determine what constitutes degradation.

Page 8-5, Item 6. The use of the term "transitory" in reference to possible odors emanating from the proposed Goat Buttes reservoir is misleading. The words "intermittent" or "occasional" would be a proper substitute. (Refer to any college level dictionary).

Page 8-8. The last two sentences of the final paragraph are either dictitorial or naive. To say that adverse impacts can be developed in an AWFP, over which the local residents have "little or no control" ignores the concepts of democracy and the sensitivity of an ~~[illegible]~~ aware politician to an aroused citizenry.

General Comment. This Section has avoided any discussion of unavoidable adverse impacts based on specific designs. The statement is made at the bottom of page 8-8 that "A specifically detailed analysis of unavoidable adverse impacts associated with the Final AWFP will be provided in the Final EIS". As there are no provisions in NEPA for the submittal of comments on new data first presented in the Final EIS or for an additional public hearing, and there is no meaningful presentation of unavoidable adverse impacts in Section 8.0, the right of the public to all data pertaining to environmental impact is being circumvented. We ask that a new EIS be prepared following completion of the AWFP, and that it discuss the impacts of specific designs.

Response to Robert A. Mann, Chairman, LVMWD Citizens Committee Verbal Testimony and Written Response (#45)

Response To Verbal and Written Testimony (#45)

General Comments

1. Opinion noted.

2. EIS/EIR has addressed all alternatives described in AWFP and does not analyze alternatives not described in the plan.

3. Alternatives for effluent reuse will be addressed in the Draft Addendum.

4. The document used the most up-to-date available data. Due to the continual changing conditions of the study area, information on certain areas have become quickly outdated. However, in the preparation of this Final EIS/EIR, data has been updated as available.

5. Opinion noted.

6. LVMWD does not act on the behalf of Malibu, Topanga area. EPA has requested that an AWFP be prepared which included these two areas in an attempt to minimize unneeded duplication of facilities and planning efforts. LVMWD was the agreed upon agency to represent and administer the planning among the involved agencies which include: TCSD, Los Angeles County, Department of the County Engineer.

Detailed Comments

1, 2, 3. The EIS/EIR was developed as a piggyback process with the Area Wide Facilities Plan to lessen the chance for duplication and to describe impacts of conceptual alternative plans. This enabled the review to be part of the EIS process. Conceptual alternatives that were not feasible, such as the stand-by reservoir in the State Park, are being deleted. New alternatives will be considered and addressed in the Draft Addendum.

4. This issue is addressed on page 3-5 concerning the Calabasas Reclaimed Water Line.

Section 2.0 Environmental Setting

Page 2-2 So noted.

Page 2-13 So noted.

Page 2-14 So noted. Data that is indicated as being 11 years old is used to determine past trends and to set a history or background for the description of regional air quality.

Page 2-15, and 16 See page 2-237 for a discussion on odor problems in the area. This was not included in the air quality section because it was not determined to be a regional or area wide health problem as are emissions of noxious pollutants.

Figure 25 So noted.

Page 2-46 Check Figure 68 for the location of "areas of special biological significance "as designated by the SWRCB, and see page 2-157 for a description of the designated areas.

Page 2-47 Granted, development in Oak Park and North Ranch will increase the runoff potential; however, it has not been recognized as posing a severe threat to downstream areas.

Page 2-48 So noted

Figure 27 The source is L. A. County Flood Control District.

Page 2-56 Rindge Dam has reverted back to its original owner, the Admanson Company and is no longer maintained or operated by the State or County. The dam is not used now for impoundment of water. Century Dam is now operated by the State of California, Department of Parks and Recreation.

Page 2-67 The Water Quality Control Plan Report from the SWRCB was the source for that discussion.

Page 2-146 So noted.

Figure 53 Referenced on page 12-6

Page 2-169	Data has been updated.
Page 2-172	So noted.
Page 2-192	Map is updated per new information and corrections.
Page 2-197	The County's Urban Development Guide, The Open Space Plan of the Open Space and Conservation Element of the County General Plan is included in the Final EIS/EIR.
Page 2-199	So noted.
Page 2-205	So noted.
Page 2-211	This information is included on page 2-144 of the Final EIS/EIR.
Page 2-212	See discussion, page 2-157 of the Final EIS/EIR.
Page 2-217	Kimberly Canyon Road is designated as a secondary highway according to Los Angeles County Road Department.
Page 2-218	This data is displayed in the Appendix, page 11-35. It is not included in the table on page 2-218 since it operates well below level of service "C", the criteria established for the table which identifies those roads reaching or surpassing "stable traffic flow".
Page 2-219	This is a known and recognized local problem, not a regional problem as those discussed in Transportation Planning Efforts.
Page 2-220	Table 54 has been changed to indicate Community Noise levels.
Page 2-225	As indicated on page 2-225 only major districts are described due to the level of detail the EIS/EIR addresses.
Page 2-229	All lines shown on Figure 74 are trunk lines. Some are operated by the TCSD and some by LVMWD.

Section 3.0 Project Alternatives

Page 3-1 Spray irrigation is the proper terminology, whether effluent is spray irrigated upon landscaping or agricultural areas.

Figure 76 Noted and corrected.

Figure 75, 77
81, and 83 Noted and corrected.

Page 3-3 See responses under Section 4.0, 4-18 and Detailed Comments 1, 2, 3.

Page 3-3,
alt. 2 This will be discussed in the Draft Addendum and the park planners will be contacted at that time, if the alternative receives further considerations.

Figure 81 Noted and changed.

Page 3-5 This section is not presented as "negative editoralism"; rather, a view of what could happen with a no project alternative.

Page 3-6 So noted. Material would be presented in a Draft Addendum.

General Comments

The word "disposal" is used even if the reclaimed water is used for spray irrigation or discharged into Malibu Creek. See page 3-1 for a detailed description of current disposal practices.

(a) Alternative treatment plants and processing methods will be addressed in the Draft Addendum.

(b) See section 3-3-4, Sludge Handling, for discussion of sludge disposal at Calabasas Landfill.

(c) This will be discussed in the Draft Addendum.

Section 4.0 and 5.0 - Impacts

Page 4-13 (Both comments.) This will be discussed in the Draft Addendum.

Page 4-15 This will be discussed in the Draft Addendum.

Page 4-16 These will be described in the Draft Addendum.

Page 4-18 Conceptually, a dam was envisioned for Alternatives 1 and 2, and this dam was placed according to the engineering needs of the conceptual project. At this time, the installation of a dam in the Malibu Creek State Park is not considered as a viable alternative. Other alternatives will be studied in the Draft Addendum.

Page 4-21 Again, this is a conceptual alternative that has not been specifically designed into, adjacent to, or under Malibu Canyon Road. Therefore, specific impacts cannot be discussed at this time.

Page 4-21
and 22 This issue will be covered in the Draft Addendum.

Page 4-31 The Malibu Coast fault is considered to be potentially active since it displaces marine terraces of Quaternary age. However, it is not known to displace Holocene (last 11,000 years) deposits. The fault is considered to be capable of generating a Magnitude 7-1/2 earthquake. Should ground rupture along the fault trace accompany such an earthquake, the proposed effluent pipeline could be damaged or ruptured at the fault crossing.

Design safety measures to mitigate the effects of fault ground rupture on the effluent pipeline would be considered during the design stages and could include crossing the fault zone with cast iron pipe in short lengths with flexible or expansion joints to accommodate possible fault movement (M. Ford, personal communication). An alternative mitigation measure includes placing flexible pipe over the natural ground surface to allow movements of the pipe without rupture, and covering it with loose fill to prevent vandalism or other damges to an exposed pipe.

A check valve on the pipe could be installed immediately north (upstream) of the fault zone to allow stoppage of liquid spills in the event of pipe rupture. Alternatively, flow can be stopped at the treatment plant. Effects of eventual spillage would depend upon the flow quantities and pressure (or velocity). Unchecked flow of effluent could erode the fill and create a small mudflow which would flow downslope. Quantities of effluent flow would depend upon the time required to stop the flow after rupture occurs. In any case, the effects would be short-term and would constitute a minor temporary health hazard only if a drinking water supply is contaminated with effluent or with the possible mudflow.

Page 4-45 See Sludge Management Alternatives, pages 3-10 thru 3-16.

Page 4-58 The figures in Table 61 are averages, hence they did not add up to give a complete story of effluent disposal from Tapia WRF. See new table, Page 2-181, for the annual total amount of treated wastewater from Tapia.

Page 5-7 The AWFP does not encompass any additional service area territory. The Clean Water Grant is only applicable to the 8 mgd now available at Tapia.

Population growth issues that would indicate a need for alternative facilities for treatment and disposal of wastewater will be addressed in the Draft Addendum.

Pages 5-21 to 5-30 Chapter 5 discusses secondary growth impacts, not direct impacts of sewage treatment. Direct impacts are discussed in Chapter 4. (See the discussion of impacts of alternative treatment facilities and disposal.)

Section 8.0 Unavoidable Adverse Impacts

Page 8-1 At this time the plans are conceptual in nature, thus, the discussion of unavoidable adverse impacts cannot be specific. The conceptual planning process is to eliminate the need for unavoidable adverse impacts.

Page 8-3 These concerns will be addressed in the Draft Addendum.

Page 8-5
Item 1 See the section on Calabasas Reclaimed Water Line and the forthcoming Draft Addendum.

Page 8-5
Item 2 This is a full disclosure document which is attempting to address the environment in a total sense. All potential issues, therefore, are discussed.

Page 8-5
Item 3 See page 4-2 to 4-3 for a discussion of unlined stream banks.

Page 8-5
Item 4 The L. A. Department of Water and Power sampled wells in the San Fernando Valley for their findings on water quality in that particular area while the RWQCB indicated that could be the discharge requirement for Calabasas Creek from Tapia. If effluent from the Tapia Plant were dumped into the wells tested by Water and Power, certainly the quality would be degradaded since the difference in the average quality level of the well water would differ from that of the treated effluent from Tapia.

Page 8-5
Item 5 Websters New Collegiate Dictionary defines transitory as being "1) tending to pass away, not persistent; 2) of brief direction and 3) temporary".

Page 8-8 Noted.

General Comments

Although a new EIS will be prepared, a Draft Addendum EIS will be available which will address, in more specific terms, various alternatives of effluent disposal systems and their environmental impacts.

Summary of Verbal Testimony of Cecile Rosenthal

Ms. Rosenthal's verbal testimony is reflective of all the concerns expressed in the written testimony and the EIS/EIR Questionnaire; therefore, no summary of the verbal is required. The response to her comments follows the written testimony and the Questionnaire.

(HE-132)28

LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: Cecile Rosenthal

ADDRESS: 3467 Inglewood Blvd., Los Angeles, Calif. 90066

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. _____Severe _____Moderate _____Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? _____Alt. 1 _____Alt. 2 _____Alt. 3 _____Alt. 4 _____No Project

   Other: or tertiary treatment with water reuse (still need land use plann to control impacts)

3. Which solids handling disposal method do you prefer?

   ✓ Sludge Farm _____Landfill _____No Project

   Other: _____

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? _____Alt. 1 _____Alt. 2 _____Alt. 3 _____Alt. 4 _____Alt. 5 _____Alt. 6

   ✓ No Project Other: until land use plan is implementatio

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies? strict land use controls — I would like to see a complete water reclamation facility put into operation after land use controls are designed and implemented to control growth and to preserve significant open space and natural resources

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

After land resources are protected, Malibu & Topanga should probably combine with LV district where private systems are inadequate.

NOV 1 7 197

①

Cecile Rosenthal
3467 Inglewood Blvd.
Los Angeles, Calif. 90066

Statement on the Draft EIS-EIR on the Las Virgenes - Triunfo - Malibu - Topanga AreaWide Facilities Plan

This draft EIS-EIR is incomplete and therefore inadequate in considering alternatives, regional impacts, and the costs of the proposed Area Wide Facilities Plan. The Area Wide Facilities Plan does not meet the stated planning objectives of EPA.

Alternatives

Alternatives that should have been discussed are:

- Tertiary treatment with
  1). complete water reclamation
  2). limited reuse of water (for non-potable purposes)
  3). Malibu Creek discharge
- Purchase of land for spray disposal of secondary effluent
- Strict land-use controls and prohibition of new hook-ups so existing system would not expand.
- Systems for Malibu and Topanga areas that would involve combinations of private and small public systems separate from the Las Virgenes system.

Regional Impact

50< The regional impacts of growth inducement in the

Santa Monica Mountains was not adiquately considered. All alternatives (except No Project) would accomodate or encourage development in the Santa Monica Mountains. While some development would occur without new sewage facilities, it would certainly be of a different magnitude then that which would take place with sewerage available. Generally, without new facilities, development would be the lower density that can be supported by septic systems. The differential growth rate from 1965 to 1975 illustrates what can be expected. In 1965 Malibu had a population of 8,730 which increased by 1975 to 15,478 – an increase of 59.1%. Calabasas with a 1965 population of 7,143 increased by 1975 to 27,898 – an increase of 290%. I believe that the construction of the Las Virgenes sewage system contributed to this differential substantially.

Regional impacts that should have been considered:

- If growth occurs in the Santa Monica Mountains, what will be the impact of the air pollution (generated by additional VMT) on the Los Angeles basin?
- Loss to development of the significant and unique open space resource of the Santa Monica Mountains and its coastline.
- Instead of discussing the best area for development in the Santa Monica Mountains, the draft EIS-EIR should have considered what is the best area for 51<

③

development in the Los Angeles region.

- Would improved sewerage facilities in the Santa Monica Mountains contribute to the deterioration of the Los Angeles urban core? The draft (2-176) documents the on-going demographic shift within Los Angeles County. The question of using public funds in a manner that will facilitate or encourage this population shift should have been discussed. (Note: The proposed mitigation (7-19) that would encourage development of employment opportunities in the Santa Monica Mountains to cut VMT would actually have adverse impacts on efforts to revitalize the existing Los Angeles urban core with its high unemployment rate. First the wealthy move from the urban core; then the jobs follow.) The population total for Los Angeles County has remained stable at about 7 million since 1970, but, within the county, large demographic shifts are taking place. This issue cannot be ignored.
- Cost to the regional area of expanded services such as fire, police, schools, transportation, government, etc. The May 1976 report of the Los Angeles County Economy and Efficiency Commission (p. 20-25) attributes a substantial part of the increase in county service costs to the migration of the affluent to outlying areas and the resulting increased demand for decentralized service facilities.

④

The immense public controversy over sewage facilities in the Santa Monica Mountains is based on these regional impacts of induced growth. Any adequate EIS-EIR must address the basic land use question in the Santa Monica Mountains. In the absence of stringent land use controls, those interested in the preservation of the natural and open space values of the Santa Monica Mountains, those interested in revitalizing the Los Angeles urban core, those interested in cutting governmental service costs, and those interested in protecting the Santa Monicas as an air shed for the Los Angeles basin will continue to look upon proposed sewage facilities as a growth inducing factor for an area whose growth would have an adverse impact on the Los Angeles region.

Costs

Costs were barely discussed in the draft EIS-EIR. The estimated \$9 to \$16 million cost for the Las Virgenes area improvements and expansion appears near the end of the report (10-7). Malibu and Topanga costs are not even suggested.

Public funds are already invested in the existing Las Virgenes system: \$145,000 (1/3 of \$446,000) in 1968 and \$2.2 million (80% of \$2.8 million) in 1972. New public funds will be at least 87 1/2 % (75% federal plus 12 1/2 % state). The EIS-EIR should have discussed the possibility of this comparatively wealthy area paying for its own services. The average income ($19,000 for Las Virgenes and $20,000 for Malibu) is nearly double the Los Angeles County average of $10,972. (Note: the $10,972 figure was used in the 1975 Los Angeles County Community Development Application. I assume the $14,000 figure stated on 2-174 is incorrect.)

Short term benefits from the Facilities Plan would appear likely for landowners and developers. The general public would pay most of the cost and lose an open space resource to development. I disagree with the benefits of energy and water economies claimed in the draft on 9-4 & 5.

Other Items

- In discussion of Malibu Creek discharge, no mention is made of the impact that a free chlorine radical would have on fish life. This is important because the virus experts have proposed use of excess chlorine to provide a margin for health safety on secondary treated effluent released to Malibu Creek.
- References to the Ventura Freeway fail to mention the congestion and delays that are common to that transportation corridor.

⑥ Cecile Rosenthal -

- Water reclamation is not seriously discussed in the draft. Water conservation measures should be more than optional if public funds are to be used.
- Mitigation of critical secondary impacts needs to be assured before any project is developed. The draft (7-15) states that "mitigation of secondary impacts is not under the responsibility or control of LVMWD-TCSD or Los Angeles County Sanitation District." There should be no project until such responsibility and control has been assured.

The Area Wide Facilities Plan needs to be reworked and a new draft EIS-EIR prepared.

Response To EIS/EIR Questionnaire (#28)

Issues discussed are the same as those addressed in the written testimony. See responses to written testimony.

Response To Cecile Rosenthal
Verbal Testimony, Written Testimony (#47)
EIS/EIR Questionnaire (#28)

Response To Written Testimony (#47)

Response to this comment are answered point by point as in the letter.

Alternatives

- Additional alternatives for treatment will be discussed in the Draft Addendum.
- The purchase of land to dispose of effluent is discussed as part of Alternative 4, pages 3-4 and 3-5.
- Growth management and land use controls are a local prerogative. The LVMWD is a service agency, not a responsive planning organization.

  It is possible that mitigation measures will be required in order to minimize the adverse impacts associated with the effects of accommodated growth resulting from increased treatment plant capacity. One such possible mitigation measure for this area, due to the on-going growth management studies, could be a requirement/grant condition restricting flow until such time as growth management plans are completed/implemented.

  The revised Los Angeles County Land Use Plan (one of the on-going studies which would affect growth and development in LA County) is projected to be finalized by December, 1977.
- Systems for the Malibu and Topanga areas will be discussed in the Draft Addendum.

Regional Impact

- Growth accommodation was discussed in Chapter 5, 8, 9 and 10.
- See above. Also refer to discussion on page 8-8.

- Refer to the response on growth management.
- The 208 study, now under development by SCAG, will address the issue of sewage facilities contributing to alteration of population shifts in a totally regional basis. They will consider the effects of point and non-point source pollution and the land uses in 6 counties and 153 cities.
- The migration of the "affluent" to outlying areas that are considered desirable places to live will, in most likelihood, occur with or without an adopted and implemented area wide facilities service plan. Those that can afford to do so will build in areas designated by the County or the cities as areas to be developed and will place a demand on public services. Again, it is not the function of the AWFP or LVMWD to determine land use policy.

Costs

- System costs are more clearly defined for the sludge management alternatives and the Calabasas Reclaimed Water Line on pages 3-6 and 3-16. Costs for the other alternatives will be described in the Draft Addendum.

Other Items

- The amount of chlorine used for Malibu Creek discharge will be addressed in the Draft Addendum.
- The segment of the Ventura Freeway in the study area is not congested on a frequent basis as is the section immediately adjacent to the study area.
- The policy of EPA, SWRCB, and LVMWD has been, and will continue to be, to maximize the use of reclaimed water. Reclaimed water is currently used for spray irrigation on landscaped areas, orchards, open space and golf courses. The Calabasas Reclaimed Water Line is the most recent LVMWD project which will increase the use of reclaimed water. LVMWD encourages the use of reclaimed water whenever possible to reduce the need for potable water.
- Responsibility for final determination and control of specific mitigation measures lies with a variety of governmental agencies as detailed in Chapter 7 of the Draft EIS/EIR. When a final plan is approved and adopted, it will be the responsibility of these stated agencies to enter into joint agreements and adopt appropriate mitigation measures to lessen the environmental effects of the plan.

Response To Triunfo County Sanitation District (#48)

Responses are made to each comment on a point by point basis.

Page 3-5, Section 3.2.5, First Paragraph

It is the policy of SWRCB and EPA to provide Clean Water grant funds for a project on a priority basis. The priority ratings are based on the criticality of the proposed projects. Because of the numerous requests for Clean Water Grant funds, each project is only able to obtain one grant from these funding agencies.

The Tapia Treatment Plant was originally designed to be constructed in phases with a maximimum capacity of 8 mgd. The first phase only allowed a 4 mgd operating capacity. This phase was accomplished with funds from a Clean Water Grant. At this time the project now being considered is to bring the plant up to its full operating capacity.

The expansion of Tapia is not a growth inducing project; rather, it is a growth accommodating project which does not enable the servicing of the entire projected population for the LVMWD/TCSD area.

In order to service the entire projected population, it is anticipated that further study will occur during the preparation of the Draft Addendum and an area wide sewage management plan, with various alternatives, will be considered.

Page 2- 3,8 First Paragraph, First Sentence

So noted.

Page 2-131, California Condor

Webster defines the term animal as: "any of a kingdom (Animalia) of living beings typically differing from plants in capacity for spontaneous movement and rapid motor response to stimulation."

Page 2-177, First Paragraph and Second Paragraph

So noted. These figures were corrected in the Final Draft EIS.

Page 2-210, First Paragraph, Last Sentence

So noted. This was correct in the Final Draft EIS (see page 2-228).

Page 3-5, Section 3.2.5, First Paragraph

See previous response to earlier comment (page 3-5, Section 3.2.5). Effluent disposal (including dumping into Malibu Creek) will be addressed in the Draft Addendum.

Page 5-2, Section 5.1.1, Fourth Paragraph

See response to comment concerning Page 2-177.

Page 5-3, Third Paragraph

So noted. See page 5-6.

Summary of Verbal Testimony of Donn Ingram

- What is surplus effluent and how is it to be disposed of?
- Consideration should be given to the impact of each alternative on the present and future water sanitation system for Las Virgenes.
- Additional public hearings should be held prior to finalization of the EIS/EIR.

REGIONAL HEARING CLERK
DEC 1 1976
REGION IX

LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: DONN L. INGRAM

ADDRESS: 736 CRATER OAK DR. CALABASAS

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. _X_ Severe ______ Moderate ______ Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? ______ Alt. 1 ______ Alt. 2 ______ Alt. 3 [✓ ______ Alt. 4] ______ No Project
Other: However this is at best tempory - should be used while beneficial uses are created.

3. Which solids handling disposal method do you prefer? ______ Sludge Farm _X_ Landfill ______ No Project
Other: This also is at best a tempory (5 to 10 years) solution based on current estimates of Calabasas landfill life.

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? ______ Alt. 1 ______ Alt. 2 ______ Alt. 3 ______ Alt. 4 ______ Alt. 5 _X_ Alt. 6 ______ No Project Other: ______

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies? Tertiary treatment and reuse of effluent in a dual water system for irrigation etc with smaller amounts treated for return to the primary water system.

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

1. I live in Monte Nido adjacent to the Tapia plant. I am greatly concerned that Z The EIS/EIR deals with waste disposal rather than reclaimation. This emphasis seriously effects me in two ways.

   a. Unlimited expansion of Tapia plant causes odors and potential health hazzard to my children who frequent the Tapia park area and do make extensive use of the creek adjacent to the plant.

   b. I am concerned that the minimal exploration of beneficial uses for waste material may lead the EPA and others to select an alternative which efficiently disposes of waste but precludes, except at greatly increased cost and extended time periods, adequate consideration of the total water/sanitation inflow and outflow problem in a cost effective and environmentally protective manner.

I would like to suggest that the EIR/EIS could be organised in a horizantal as well as vertical format which would not only meet the EIS/EIR Legislation requirements but would also allow a reviewer to explore a comparison of alternatives by subject matter as well as by alternative number.

Response to Donn L. Ingram
Verbal Testimony and EIS/EIR Questionnaire (#51)

Response to Verbal Testimony:

The Draft Addendum will contain many alternatives for wastewater disposal and will address the concerns stated here for surplus effluent.

Response to Questionnaire (#51)

The Tapia WRF was originally designed to be constructed in phases. At the present time the Tapia treatment plant has a designed hydraulic capacity of 8 mgd; however, the solids handling capability is currently designed for 4 mgd.

The present plant was constructed with funds from a Clean Water grant. At this time, the project now being considered is to bring the plant up to its full 8 mgd design capacity.

Available sewage treatment capacity is not considered growth inducing; rather, it is growth accommodating. Prior to construction of any expansion components of the Tapia WRF, LVWMD/ TCSD will be required by EPA to seek adoption of mitigation measures from appropriate agencies and entities empowered to implement such measures.

The current odor problem is a result of an overload of the system in sludge processing. This will be corrected by expanding the plant which will remove the overload conditions of the sludge processing and allow the plant to operate more effectively.

A goal of the LVMWD is to reclaim as much wastewater as possible and to this end they have researched many methods to achieve reclaimed water that is saleable, and without health hazards. Currently, there are unresolved health issues relating to dual water systems that the SWRCB is studying.

Further alternatives for reclaiming wastewater will be studied in the Draft Addendum.

Summary of Verbal Testimony of Walter Keller, Malibu Township Council

- Report too long for citizens to read with all the rest of their obligations.
- Page 2 of the Draft EIS/EIR should explain the kinds of sewer systems rejected by residents of Malibu.
- Septic tanks in Malibu should have been described for their long-term successful operation.
- Where is documentation of septic tank problems?

LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

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NOV 29 1976
REGION IX

NAME: Walter F. Keller

ADDRESS: 4924 S. Encinal Cn Rd., Malibu 90265

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. __✓__ Severe ______ Moderate ______ Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? ______ Alt. 1 ______ Alt. 2 ______ Alt. 3 ______ Alt. 4 __✓__ No Project
   Other: Plus improvement of existing process & facility

3. Which solids handling disposal method do you prefer?
   ______ Sludge Farm ______ Landfill ______ No Project
   Other: See LAOMA Project - New [illegible] which [illegible] [illegible]/oil

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? ______ Alt. 1 ______ Alt. 2 ______ Alt. 3 ______ Alt. 4 ______ Alt. 5 ______ Alt. 6 __✓__ No Project Other: ______

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies? None Req'd with no project.

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

(HE-132) 59

MALIBU
TOWNSHIP COUNCIL, INC.
A Community Association
MALIBU, CALIFORNIA
P.O. Box 803, 90265

CENTER
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November 29, 1976

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REGION IX

U.S. Environmental Protection Agency
Region IX
100 California Street
San Francisco, California 94111

Gentlemen:

You received in-depth testimony from members of the Board of Directors of the 800 plus member Malibu Township Council at your recent hearing on the Draft EIS/EIR for the Las Virgenes - Triunfo - Malibu - Topanga Area Wide Facilities Plan. This letter is formal endorsement of that verbal testimony. In general summary, it may be said that:

1. The Malibu Township Council endorses the Las Virgenes Municipal Water District Citizens Advisory Committee statement.
2. The report is not unbiased or objective.
3. The report contains many errors.
4. Promises made by the consultant to citizens with regard to study content were broken.
5. Individual systems were not adequately explored or considered as a viable alternative.
6. The report was excessively lengthy and discouraging to broad community interest and readership.
7. The Facility Plan should have been made available to the public along with the EIR.
8. There was inadequate concern for energy consumption and air pollution effects.

I believe that the community had high hopes that, with the E.P.A. involved, a truly unbiased, objective study would be conducted. Instead, we received the same old pro-100-year old sewer system approach we've received in the past from previews, biased agencies and consultants. It is in great need of restudy and rework by competent members of E.P.A.

For the Board of Directors,

Walter Keller

Walter F. Keller, President

WFK:js

Response to Walter Keller, Malibu Township Council
Verbal Testimony, Written Comment (#59)
EIS/EIR Questionnaire (#42)

Response To Verbal Testimony

Page 1-8 of the EIS/EIR explains, in more detail, the background of sewering districts in the Malibu area. Page ii or 2, is a summary only of the actions that have occurred. Long-term operation of the septic tanks and maps of those successful on-site sewer areas in Malibu will be discussed in the Draft Addendum. The addendum will also examine individual on-site disposal systems as a viable alternative in the Malibu area.

Response To Written Comments (#59)

- Complete analysis of the individual systems alternative will be provided in the Draft Addendum.
- The EIS is a full disclosure document and, as such, must respond to the requirements and regulations of the National Environmental Policy Act. To comply with the regulations of NEPA, it was determined that the level of detail contained in the EIS was necessary to be a full disclosure document.
- The Area Wide Facilities Plan was available to the public at the same places as was the Draft EIS/EIR.
- General energy requirements (pg. 4-46, 47) and air pollution effects (pg. 5-21 through 39) were considered for each alternative. Upon selection of a preferred alternative, energy requirements and air pollution effects specific to the alternative will be thoroughly discussed in the Final EIS.

Response To EIS/EIR Questionnaire (#42)

Sludge management alternatives for this project were developed by the Engineer, in response to this particular problem. The LA/OMA Project addresses a full range of alternatives to dispose of sludge for Los Angeles and Orange Counties in the most cost effective and environmentally sound manner.

Summary of Verbal Testimony of David Brown

- EIR should do a better job of letting us know more accurately what the tradeoffs will be for each disposal alternative.
- Specific concern is with the impact on native oak trees .
- It is essential to accurately map vegetation in any area that will be impacted by any disposal alternative.
- Figure 49 is an inaccurate vegetation map, areas that are dotted with oak trees are shown as chaparral; areas noted as grassland contain oak woodlands.
- Spray fields which apparently will be watered by 1,000,000 gallons per hundred acres per day will generate a considerable amount of unwanted vegetation, such as milk thistle (a weed). How do you get rid of this unwanted vegetation?
- Cattle, turned loose on super damp soil that has been spray irrigated, will trample the soil and destroy the porosity of the soil.
- Objection to the location of the dam in Malibu Creek State Park should be an alternative location.

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DEC 3 1976
REGION IX

5860 Belbert Circle
Calabasas, CA., 91302

November 28, 1976

Environmental Protection Agency, Region IX
Attention: Hearings Office - HE 132
100 California Street
San Francisco, CA., 94111

Dear Sirs:

I am enclosing written comments on the Draft EIS/EIR for the Las Virgenes - Triunfo - Malibu - Topanga Area Wide Facilities Plan.

Should you want further information or clarification, please feel free to contact me.

Sincerely,

David M. Brown

(HE-132) 83

Figure 27 - Surface Hydrology

This is incomplete in that it omits several springs and streams on the north slope of the ridge above Malibu - Triunfo Canyon, on Saddle Peak, and in the Malibu area. These include:

Topanga Canyon - year-round stream

Tuna Canyon - year-round stream

Solstile Canyon - year-round stream - lower portion

Costello Canyon-(just above LUMWD property) year-round seepage

Brent's Canyon-(just above LUMWD property) year-round stream upper portion

Pine Creek - year-round stream flow - middle portion.

Mendenhall Canyon - year-round seepage at two points on main stream and two points in side canyons

Fern Creek - year-round stream

Gilbert Canyon - year-round seepage

Arroyo Sequit - year-round stream

Newton Canyon - year-round stream

Liberty Canyon - seepage in side canyon

Some streams shown as perennial on the map are only seasonal -

Lower Cold Creek
Triunfo Canyon from Malibu Lake to the mouth of Las Virgenes Creek
Liberty Creek

Figure 49 - Biota

Reproduced from best available copy.

This figure is very over simplified.

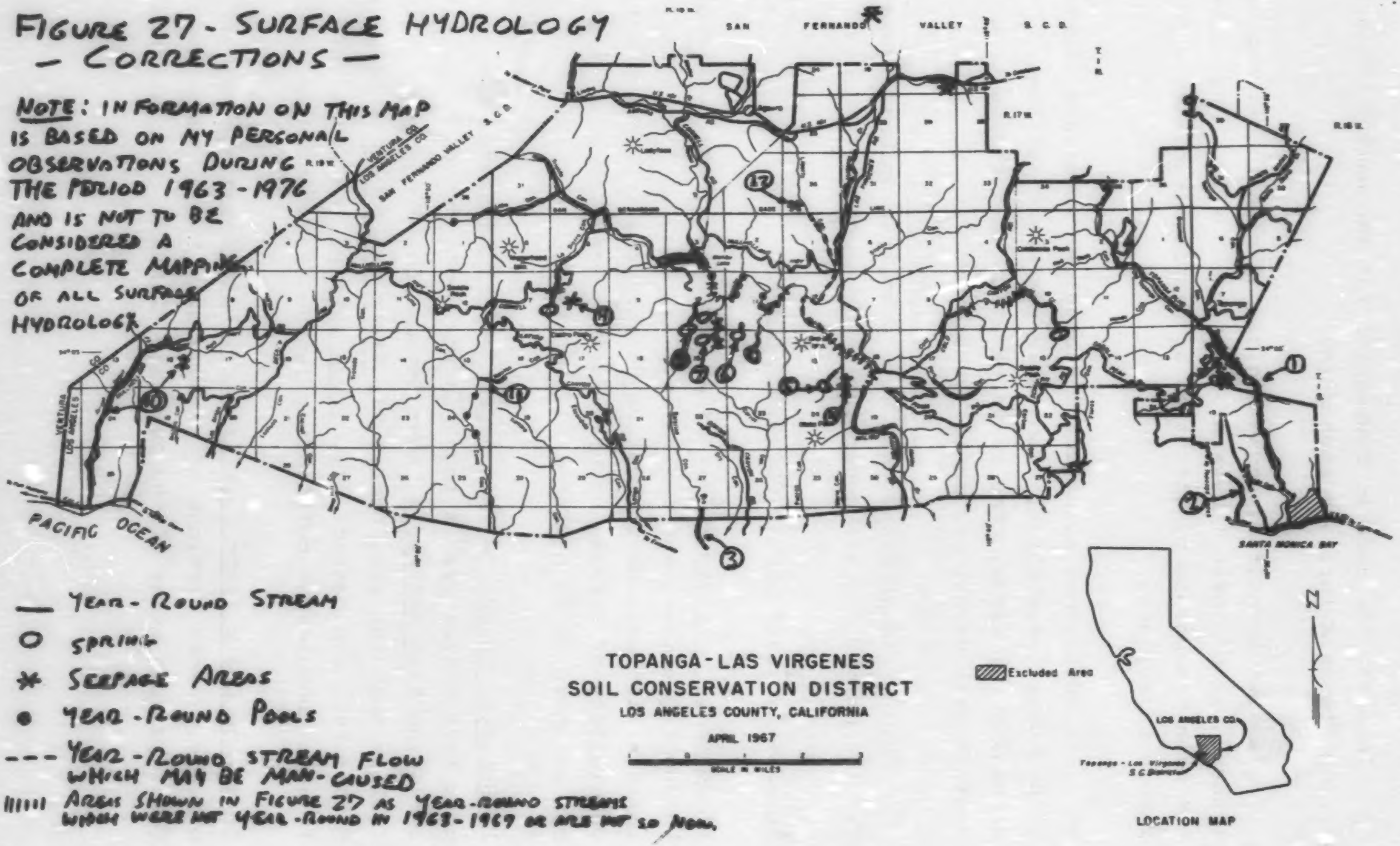
1) It omits numerous areas which contain stands of native oak trees. Many areas classified as herbland contain sizeable stands of Valley Oak (Quercus Lobata) - including a number of areas listed as potential sprayfields in alternative 4, specifically, lower Liberty Canyon and areas along the west side of Las Virgenes Creek and areas east of Las Virgenes Road.

2) Areas designated as chaparral are often Valley Oak savanna (west side of Liberty Canyon and hills northwest of the junction of Las Virgenes and Malibu Creeks) or Live Oak woodlands (north - facing slopes in the Liberty, Las Virgenes, and Malibu Creek drainages).

In light of the fact that watering of native oaks in summer causes the development of fatal fungus diseases, it is essential that there be accurate mapping of stands of native oaks in all potential sprayfield areas. For this purpose this map is totally satisfactory.

FIGURE 27 - SURFACE HYDROLOGY
- CORRECTIONS -

NOTE: INFORMATION ON THIS MAP IS BASED ON MY PERSONAL OBSERVATIONS DURING THE PERIOD 1963 - 1976 AND IS NOT TO BE CONSIDERED A COMPLETE MAPPING OF ALL SURFACE HYDROLOGY



— YEAR-ROUND STREAM
O SPRING
* SEEPAGE AREAS
● YEAR-ROUND POOLS
- - - YEAR-ROUND STREAM FLOW WHICH MAY BE MAN-CAUSED
IIIIII AREAS SHOWN IN FIGURE 27 AS YEAR-ROUND STREAMS WHICH WERE NOT YEAR-ROUND IN 1963-1969 OR ARE NOT SO NOW.

TOPANGA - LAS VIRGENES
SOIL CONSERVATION DISTRICT
LOS ANGELES COUNTY, CALIFORNIA
APRIL 1967

Figure 67 - Open Space

This map has updated boundaries for the Nature Conservancy's Murphy Preserve (private open space).

It also identifies seven additional significant ecological areas. Six of these I have explored personally. The seventh has been brought to my attention by people associated with the Nature Conservancy.

The additional significant ecological areas are riparian areas with unusual vegetation. Most have year-round streams. Two have archeological sites. One contains a Golden Eagle nest, most contain rare or unusual relict vegetation.

Most of these areas have been submitted to Los Angeles County for inclusion in their general plan as significant ecological areas.

Additional Significant Ecological Areas:

1) Upper Lobo Canyon - This is an area with year-round pools, a Golden Eagle nest, and Indian cave paintings. I am including it in this list because the Nature Conservancy is looking into the possibility of purchasing it. Further information on this area can be obtained from Margot Feuer (213-456-2894).

2) Brewster Canyon - This upper fork of La Sierra Canyon contains most rare canyon plants found in the Santa Monica Mountains, including Big Leaf Maple (Acer Macrophyllum), Humboldt Lily (Lilium Humboldt var. Ocelatum), Giant Chain Fern (Woodwardia Fimbriata), and, especially, Creek Dogwood (Cornus Glabrata). It also contains an outstanding canyon forest of Live Oak and Bay.

3) Malibu Creek State Park Critical Watersheds - These areas are privately owned portions of particularly fragile park watersheds. The adjoining areas of the park are slated to be classified as

natural preserves by the state, so that any development of these watersheds that might have an adverse impact on the park ought to be avoided.

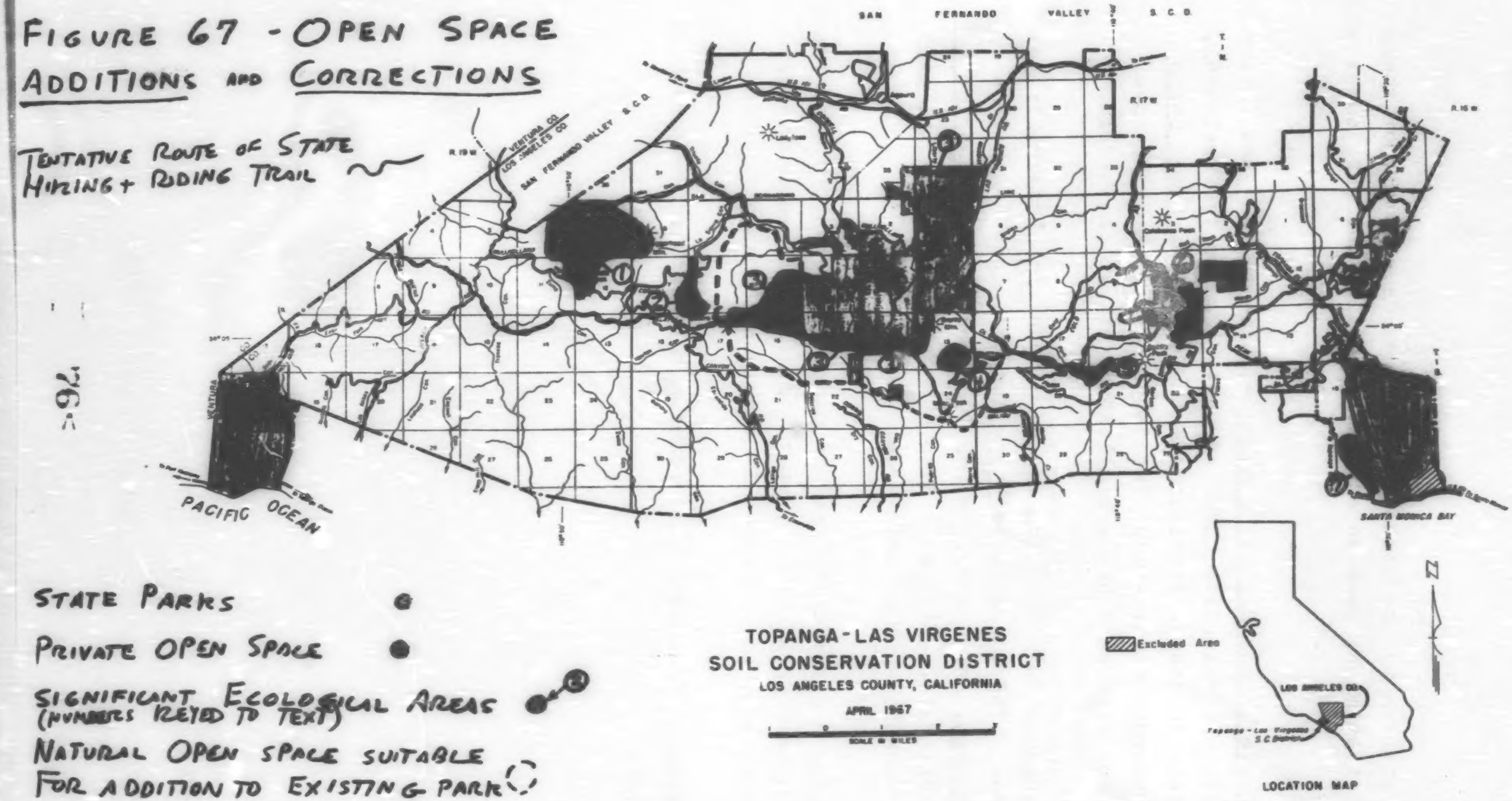
4) Upper Costello and Brents' Canyons - These two canyons, which are directly south of existing LUMWD property are the only privately owned parcels in the Santa Monicas with full sized Giant Chain Ferns (Woodwardia Fimbriata). The ferns here have fronds over 9' long. Costello also has a small stand of Big Leaf Maple.

5) Dark Canyon - This is wild, rugged canyon with a sizeable year-round stream. There are large White Alders (Alnus Rhombifolia), Big Leaf Maples, and a record-sized 50' specimen of Flowering Ash (Fraxinus Dipetala). There is also a dense growth of Wild Grape (Vitis Girdiana), rare in this area.

6) Cold Creek - Upper Cold Creek is owned by the Nature Conservancy. The area contains a sizeable year-round stream, a well-developed riparian woodland, and evidence of previous indian occupancy.

7) Tuna Canyon - This is a year-round stream with a fine stand of White Alders.

FIGURE 67 - OPEN SPACE ADDITIONS AND CORRECTIONS



TENTATIVE ROUTE OF STATE HIKING + RIDING TRAIL ~

TOPANGA-LAS VIRGENES
SOIL CONSERVATION DISTRICT
LOS ANGELES COUNTY, CALIFORNIA
APRIL 1967

STATE PARKS ●

PRIVATE OPEN SPACE ●

SIGNIFICANT ECOLOGICAL AREAS (NUMBERS KEYED TO TEXT) ●

NATURAL OPEN SPACE SUITABLE FOR ADDITION TO EXISTING PARK ◌

P. 2-152 Riparian Woodland

The statement is made that Coast Live Oak (Quercus Agrifolia), which is the most common native tree in the study area "thrives on abundant water". No evidence is given to support that statement. Furthermore, it is contradicted by the enclosed scientific literature, which implies that all native oaks are harmed and often killed by survace watering during the dry season.

This statement should either be supported by evidence or omitted from the final EIS/EIR.

It is true that all oaks require a good supply of groundwater, but surface watering is a very different matter, expecially when we are talking about sprayfield conditions during hot weather.

Coast Live Oaks often grow in dry soil adjacent to riparian woodlands, but they are not a riparian tree in the same sense that Willows, Alders, Cottonwoods, and Sycamores are. I have inventoried vegetation in dozens of canyons, and I find repeatedly that, the more moisture there is in a streambed, the farther the Live Oaks grow from it.

Live Oak may grow on the banks of dry arroyos, but not next to the channel of permanent or semipermanent streams, Live Oaks also appear to die when radical changes are made in the water table. Grading and paving in the root zone are also detrimental.

Thus, sprayfields - and creation of year-round runoff in previously dry arroyos - could be fatal to oaks in the area affected.

P. 2-162) Santa Monica Mountain Fuelbreak

This 3000' fuelbreak would have the following impacts:

1) Destruction of flora and fauna habitat on several hundred acres of state park land.
2) Severe damage to viewshed for Mulholland scenic corridor and for visitors to Malibu Creek State Park.
3) Probably siltation of several very fragile canyons, including four in Malibu Creek State Park. All these canyons contain permanent streams and pools, and fragile riparian herbaceous plants such as Yellow Mimulus, Venus Hair Fern, etc. Two contain rare flora, including a species of Dogwood.

   Specific impacts through siltation would include filling of pools which are critical habitat for the California Newt and various aquatic insects, destruction of riparian plants, and damage to the aesthetic value of year-round pools and waterfalls. (A small firebreak on the divide between Bulldog and Fern Creeks has already caused siltation damage along both streams within Malibu Creek State Park.)

4) As of this date the state is planning to put a major hiking and riding trail the length of the Santa Monica Mountains. This trail is tentatively projected to follow the ridgetop from Malibu Canyon to Castro Peak. It is doubtful that users of this trail would want to follow a 3000' wide man-made firebreak.

5) There is a probability that watering of this area would upset the local geology, using excessive runoff, slides, mudflows, etc.

Page 4 - 2 to 4 - 11 __Goat Buttes Reservoir__

It is correctly noted on page 4 - 11 that this reservoir is in a state park. A reservoir for raw sewage that would involve considerable alteration of the natural landscape is so out of harmony with the purposes of a state park that it will probably never be built. However, it is in the plan, and its impact must be assessed.

The exact location of this reservoir is unclear from the map, but it appears to be the lower portion of Lost Cabin Creek, a year-round stream which enters Malibu Creek in the middle portion of a spectacular U-shaped gorge. The dam would presumably be located at a narrowing of the canyon about 200 yards up-stream from Malibu Creek. There is a 25 foot waterfall at this point.

Lost Cabin Creek is one of four streams that descend the north slope of the Santa Monica Mountains within Malibu Creek State Park. Large portions of the Creek run all year. The banks are lined with wildflowers most of the year - red and yellow Mimulus, Dudleya, Larkspur, Chinese Houses, Humboldt Lily, and - in the area of the projected dam - Chocolate Lily. There are waterfalls and pools with abundant Maidenhair Fern. The effect is similar to that of a rock garden. This is the one all-year stream in Malibu Creek State Park that is easily accessible to visitors.

The state's resource inventory of the area says this about Lost Cabin Creek (p. 48-49)

"South of Malibu Creek there are several streams, including ... Lost Cabin Creek flowing down the north slope, each of which has undisturbed, rather fragile and unique canyon flora, and an environment that imparts the feeling of great isolation and wilderness..."

In addition, there is a Golden Eagle nest about a thousand feet west of the proposed damsite. Dr. Thomas Howell of U.C.L.A. can give you further information on the impact of reservoir construction and operation on this nesting site.

Directly downstream from this reservoir is U-shaped gorge nearly a thousand feet deep, probably the most scenic area in the Santa Monica Mountains. The existing sewer line passes north of this gorge, but according to the maps of alternatives one and two, the sewer lines to the reservoir would have to pass through this gorge, which is in places less than 100 feet wide with sheer walls 100 to 400 feet high. Construction through here would involve major engineering problems which are not even alluded to here. Portions of the east wall of this gorge contain a rare variety of Sedum (Sedum Spathifolium var. Spathifolium) not previously found south of San Luis Obispo, according to David Verity, curator of the U.C.L.A. herbarium.

Sewer line construction along other portions of Malibu Creek would damage valuable riparian woodland areas. Serious damage - including blasting in two areas - was done in this area when the sewer line was constructed several years ago (prior to state purchase of the land). These scars are only now beginning to heal.

As noted on page 2-157, the area along Malibu Creek contains some of the best riparian woodlands in the study area. This is especially true of the Salvation Army and Malibu Creek State Park properties. Riparian woodlands in these areas include forests of Coast Live Oak and Bay (Umbellularia Californica) with well developed understories of ferns (Wood Fern, Maidenhair and Bracken), shrubs (Blackberry, Snowberry, Gooseberry, etc.) and wildflowers (Milkmaids, Hedge Nettle, and Humboldt Lily). Rock cliffs support Licorice Ferns, Dudleyas, and Liverworts.

Along the stream are two trees not commonly found in this area, Black Cottonwood (Populus Trichocarpa) and Leatherleaf Ash (Fraxinus Velutina var. Coriacea), along with Black Walnut and various Willows.

Pipeline and associated road construction has damaged much of the riparian flora in the past and would, presumably do so again.

P. 4-41 Biota

This section is very incomplete in that it completely overlooks the existence of native oaks and other natural vegetation in several sprayfield areas.

A number of Valley Oaks (Queecus Lobata) and Coast Live Oaks Q. Agrifolia) are found within the limits of sprayfields in most of the areas listed in figure 81, including the Greer, Claretville, Hope, and Malibu Creek State Park.

The stand of Valley Oaks in Malibu Creek State Park is especially significant in number of trees, size of trees, and the fact that these trees are under public protection.

The 260- acre portion of Malibu Creek State Park shown in figure 81 contains over 200 Valley Oaks and several dozen Coast Live Oaks. 28 of the Valley Oaks are large trees - from four to six feet in diameter.

The states' resource inventory of Malibu Creek State Park makes special reference to the importance of the stands of Valley Oak in this part of the park (p. 49).

In the light of all this, why was the information on p. 2-150 omitted? The last paragraph on that page states that Valley Oaks "cannot tolerate excessive water and, when overwatered, it becomes vulnerable to fungus and easily dies."

This is confirmed by several authorities:

1) In Oaks on Home Grounds, published by University of California Extension and authored by, among others, Arthur McCain, Extension Plant Pathologist, and Robert D. Raabe, Professor of Plant Pathology at University of California, Berkeley, it is stated that watering of Native Oaks in hot weather causes two fatal diseases, Crown Rot and Root Rot (Armillaria).

2) Horticulture for the Home Gardener published by the Los

Angeles State and County Arboretum states "The combination of moisture and warm temperatures creates good conditions for Oak root rot (Armillaria Mellea), a disease that has been largely responsible for the death of many native oaks."

3) Western Garden Book published by Sunset magazine says "Never water within 4 ft of the trunk (of any native oak)" (p. 391).

In the light of this, the California Department of Parks and Recreation has imposed the following conditions on existing sprayfields in Malibu Creek State Park:

> "Effluent may not be discharged in chapparal and Oak woodland areas"
>
> "No discharge may be made closer than 50 feet to the exterior drip line of any California Live Oak or California Valley Oak."

(See letter of November 14, 1975)

In the light of all this, it should be clearly stated in this section that the spraying of effluent on or near native oaks, which are present in several sprayfield areas, will probably result in the death of these trees.

horticulture

for the home gardener

Number 1 September 1974 (revised June 1976)

Care of Native California Oak Trees

Over the past several decades, many California native oaks have been disappearing from the urban and rural landscape, perhaps most notably Quercus engelmannii and Q. agrifolia. Of the various reasons advanced for this decline in the oak population, a few have been well documented, others are speculative.

Probably the most important cultural factor in the life of an oak tree has to do with watering methods. Native oaks have survived for hundreds of years under natural conditions without any artificial irrigation by man. But in urban areas where there has been a great increase in housing and commercial development, man, lacking adequate information, has employed the wrong methods in his attempt to preserve the oaks. Specifically, he has watered oak trees during the warm summer months, a period which is their natural dormant season. This practice - the combination of moisture and warm temperatures - creates good conditions for oak root rot (Armillaria mellea), a disease that has been largely responsible for the death of many native oaks.

Native California oaks do not normally need to be watered, but if rainfall during the winter and early spring months is below 18 inches, additional deep watering can be practiced from March through May. If watering of plants adjacent to the tree is necessary at any time, do not let the water hit the trunk of the tree. Ideally, ferns and other shade plants should not be planted under a native oak as the cultural requirements for the two are totally different. Also, ivy and other vines should not be allowed to climb up trees.

Any kind of grade change can seriously damage an oak tree. Generally, grading should take place only on the outside of the tree's dripline, which is the area that could be compared to the outer edge of an umbrella where water would drip off. If the soil level is to be raised, a well should be constructed around the oak so that soil does not come in contact with the tree trunk. The well should have a removable grating over it for safety and to allow air circulation around the trunk. The well should be large enough to permit a man to get down inside to clean it out occasionally. The point at which the roots meet the trunk (root crown) must be clear of soil or debris at all times. If the grade is to be lowered, be sure to stay on the outside of the dripline and avoid damaging any large roots. Even when there has been no change in grade of surrounding soil, it is important to clear away soil from the root crown. This can be accomplished by removing soil for a minimum of two feet completely around the tree, forming a saucer-shaped basin in which water will drain away from the tree. This area should be maintained free of plant growth and litter as well as soil.

Oak trees occasionally need fertilizing. In early spring, a high-nitrogen fertilizer such as 16-4-4 may be broadcast on the ground surface within the circle created by the dripline, at the rate of 10 pounds of fertilizer per 1,000 square feet and watered in. If the tree is surrounded by paving, tiles should be installed to permit watering and fertilizing. The tiles should be spaced about 10 feet apart around the circumference of the oak dripline.

Pruning of oak trees should be done in September or October and should be limited to the removal of dead or diseased limbs with no heavy pruning at any time.

(over)

LOS ANGELES STATE AND COUNTY ARBORETUM · 301 NORTH BALDWIN AVENUE, ARCADIA, CALIFORNIA 91006

Care of Native California Oak Trees

Reproduced from best available copy.

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(over)

FROM OAKS ON HOME GROUNDS,
PUBLISHED BY UNIVERSITY OF
CALIFORNIA EXTENSION.

baryl in the spring after shoot elongation and before the leaves are fully expanded. Spraying is not suggested as a general practice, however, since the timing of application differs among the many species involved. Chemicals are not effective after the galls have developed.

OAK DISEASES

Native California oaks, relatively free of diseases when growing under natural conditions, are subject to several important diseases when grown under cultivation where they receive water during the summer.

Crown Rot and Decline

This disease, the most common and serious disease of oaks in home plantings, is particularly severe in live oaks. Infected trees decline slowly over a period of years. As the disease progresses, the foliage becomes more sparse, and the tree eventually dies.

The disease results from too much moisture around the base of the tree during the summer months. Such conditions are favorable to the development of many soil fungi, including the water molds (*Phytophthora* and *Pythium* spp.) which are believed to be involved. To control crown rot, stop all watering of the soil between the trunk and the drip line. Do not plant plants requiring summer watering under these trees. Do not raise the soil level around the crowns of oaks since this also favors the development of the disease.

Armillaria Root Rot

This disease, also known as oak root fungus disease and shoestring root rot, results from infection by *Armillaria mellea*, a mushroom-producing fungus. Oaks are frequently found with this fungus in the root systems although, under natural conditions, there is little damage. However, when oaks are watered in the summer or weakened by some other condition, including crown rot, they may succumb to *Armillaria* root rot. The symptoms are the same as for crown rot, but decline is more rapid.

When *Armillaria* is present, a white or cream-colored, fan-shaped fungus growth occurs between the bark and the wood of the larger roots and the portion of the main stem below the soil level. The infected tissues have a mushroom odor. Black, root-like strands (rhizomorphs) on the surface of affected roots are signs of *Armillaria*. Another symptom is the presence, usually in late fall or early winter, of mushrooms around the bases of infected trees.

If the disease has not progressed too far, the life of a tree may be prolonged by cutting out the infected tissue and exposing the base of the tree to the air. Watering must also be discontinued as with crown rot. There is no known effective chemical treatment for a tree with this disease.

Since many other kinds of plants, including both woody and herbaceous species, are susceptible to the fungus, it is important that only resistant plants are grown in the vicinity. A list of plants resistant or susceptible to *Armillaria* is available from your farm advisor.

Powdery Mildew or Witches' Broom

Leaves infected with powdery mildew are covered with a white powdery growth. When tender new shoots are infected, they become shortened, excessively branched, with small distorted leaves. Sometimes additional buds are stimulated to grow, resulting in growth covered with the powdery mildew fungus, often referred to as witches' broom.

Succulent growth beyond the spring flush of growth is most susceptible; therefore, avoid excessive pruning, fertilization, and irrigation.

Remove the brooms where practical during the winter months to reduce the spread of the fungus. If the disease has been severe, several fungicidal sprays may be helpful if applied in the spring at the time of the normal flush of growth, and at 10- to 14-day intervals until rapid growth has ceased. Cycloheximide (Actidione® PM) has been used successfully.

Another powdery mildew causes no witches' broom but develops as light-brown or white, felt-like patches on the infected leaves. Cycloheximide may give control.

The Care of Native Oaks

Reproduced from best available copy.

The presence of so many native oaks in all parts of the Topanga-Las Virgenes area helps to make this one of the loveliest sections of Southern California. Some of these trees are unavoidably lost in the course of development, but a distressing number survive the rigors of development only to die quickly at the hands of well-meaning but poorly-informed owners of new homes and businesses who fail to adapt their landscaping plans to the special needs of these trees. This flyer is not intended to be a definitive work on the subject of native oaks. The intent is rather to call attention to a problem: the needless loss of dozens of beautiful oaks through failure to take account of their special needs. If recipients of this leaflet would call its contents to the attention of owners or developers of properties having oaks, our chances of saving these trees for the enjoyment of future generations would be greatly enhanced.

There are two oak trees native to the Topenga-Las Virgenes area:

Coast Live oak: (quercus agrifolia) This is the common live oak of Southern California, a holly-leaved evergreen tree found in canyons and on north-facing slopes throughout the Santa Monica Mountains.

Valley oak: (quercus lobata) A large, deciduous white oak with grey, ridged bark, and deeply lobed typically oak leaves. This largest of all American oaks is common in the hot interior valleys of central California. In our area it is confined to the grassy hillsides and valleys of the Calabasas-Agoura-Westlake area, where it is abundant and reaches large size. It is not found in chaparral areas or coastal canyons.

Our two native oaks are different in many ways, but they have much in common. In nature they grow in areas with a good supply of ground water at some depth, but they do not grow in soils that remain moist during the summer months. They like deep, rich, dry, undisturbed soil around their trunks.

In their natural environment oaks are very tough trees. They survive and recover from brush and grass fires, prolonged drought, and insect attacks. Their normal life span covers hundreds of years. Few trees are more tenacious and durable—in their natural environment; few die so quickly in an improper artificial environment.

The best thing to do with any oak is to leave it in conditions as closely resembling its natural state as possible. Oaks don't need people. They have done very well without us for a long time. Well-meaning efforts to "help" them by watering, landscaping, fertilizing etc. are the very things that are, by taking them out of the environment they are so well adapted to, bringing their lives to a premature end.

Most losses of native oaks could be prevented by following a few simple rules:

1. DON'T WATER OAKS IN SUMMER! Both our native oaks have evolved in a climate where there is no summer rainfall. They have no inherited resistance to the fungus diseases that develop under warm, damp conditions. In this respect our oaks are not like other trees. They not only do not need water in summer but it may actually kill them. That which fire, drought, earthquake, instect, and storm could not destroy over many centuries, is being done-in by the common garden sprinkler. SUMMER WATERING IS THE MAJOR CAUSE OF DEATH AMONG LOCAL OAKS. Most oaks can get along on natural groundwater. If you feel you must give yours additional water, do it in the Spring, on a cool day, and, to be extra safe, use a root-feeder. (This is a good policy on any native tree or shrub that normally grows in dry soil)

   If the tree is not supposed to be watered this also affects that can be planted under it. The most important thing is to keep water away from the trunk and the soil immediately surrounding it. It is also a good idea not to let ivy or iceplant grow on or around the trunk and root crown. Keep the area around the trunk free of plants and debris. This will reduce the chance of fungus infection.

2. DON'T GRADE AROUND OAKS! Above all, don't buy the root crown: that it, don't pile dirt around the tree so as to bury the trunk above natural ground level. If grading must be done, try to stay as far from the trunk as possible, preferably outside the dripline, so as to avoid damaging the roots. If the ground level must be raised around the tree, build a well around the trunk so as to keep soil from piling up against the trunk. If a grating is put over the well, build it so that it can be removed occasionally in order that debris can be cleared out of the well. It is vital under all conditions not to bury the trunk above the original soil-line either with dirt, heavy plant cover, or accumulated debris. (If a tree has been damaged or buried during construction of a home, call a professional tree surgeon as soon as possible and follow his advice. In any case, dig away dirt around the trunk down to the original soil-line.)

3. DON'T PAVE AROUND OAKS! Continuous paving around oaks, especially Valley oaks, will kill them. If the area around a tree is needed for parking, "pave" with demend blocks turned on their sides and filled with gravel. (El Camino Shopping Center in Woodland Hills saved four superb Valley oaks in this way.) The best course would be to consult a professional before paving or grading within the dripline of any oak.

In other areas of tree care, oaks should not be fertilized any more than necessary, but if fertilizer is needed, use a high nitrogen (10-5-5 etc.) fertilizer at a rate of ten pounds per 1,000 sq. ft. and water in (during Winter or early Spring, of course).

Pruning should be done in the Fall and should involve only dead or diseased limbs. Do not cut oaks back drastically, as is sometimes done to elms.

Insect pests can be controlled with Sevin spray in May to prevent twig girdlers, and when moth caterpillars are present the oaks may be sprayed.

In summary, don't water on or near the trunk in Summer. Do not bury the root crown with dirt heavy plant cover, or accumulated debris. Don't grade or pave around a tree without consulting a qualified professional tree man. Urge homeowners and developers to give oaks proper care, and take the initiative in remedying any damage done to oaks during development.

Other native trees and shrubs also have special needs and requirments. For further information, call the District Office (455-1030) or the County Arboretum (681-5277).

P. 4-42 Open Space, Parks and Recreation

1) (p. 4-43) The Hope property has now been added to Malibu Creek State Park, giving it the legal protection of State Park classification.

2) The state has already (as of 5-1-76) terminated all sprayfields on the old Century Ranch portion of Malibu Creek State Park. It shows no interest in resumption of spraying on this portion of the park.

3) Sprayfields on the Hope Ranch property are operating under restrictions designed to protect oak trees and soil.

4) The state is finalizing a general development plan for this park. It envisions intensive development of past, present, and proposed sprayfields into parking lots, recreational vehicle campsites (150), tent campsites (125), equestrian campsites, picnic areas, and various other facilities. There will be few, if any, open areas that could be used as sprayfields.

5) In the light of all this, it is highly doubtful that the district can count on 260 acres of sprayfields in Malibu Creek State Park. Any use of effluent in the park would be very limited due to development of facilities and the need to protect stands of Valley Oak in Liberty Canyon and other areas.

Response to David Brown
Verbal Testimony and Written Comments (#63)

Response to Verbal Testimony

Figure 49 is updated to more accurately reflect the generalized vegetation types in the Study Area.

The remainder of the concerns are addressed below in the response to the written testimony, or will be addressed in the Draft Addendum.

Response to Written Comments (#63)

Figure 27

Information on Figure 27 was based on available data, not detailed primary surveys. The information supplied by Mr. Brown has been included in the Final EIS/EIR (See Figure 27.

Figure 49 - Biota

This map is simplified and cannot be used to address the impacts of specific project sites. However, the map must be simplified to be appropriate for the level of detail of this report. It is based on the most up-to-date information available (Los Angeles County Study of Landsat Imagery) and is subject to change. It was never intended to be used to discuss specific project sites. More localized discussions relevant to this topic can be found on Figure 35 and Pages 2-28 to 2-111 in the Final EIS/EIR.

Figure 67- Open Space

So noted. These areas have been included in the Final EIS/EIR as either part of the 1976 Los Angeles County Significant Ecological Areas Study, or addressed separately.

Page 4-2 to 4-11 Goat Buttes Reservoir

Most of the significant biological resources for which David Brown is concerned have been included, in at least a general manner, in Chapter Two - Biota:

- Los Cabin Creek is one of the small canyons within Malibu Creek State Park for which Area of Special Biological Significance #5 serves as an important buffer. The unique and fragile flora in the canyon have been noted and recommended as a major environmental constraint.

- The valuable riparian habitat and other unique and fragile flora in Malibu Canyon have been noted in the description of Area of Special Biological Significance #9. Sedum Spathifolium var spathifolium would certainly be included as a unique feature of the area, but it is not on the Federal list of endangered species, nor is it on the California Native Plant Society list of endangered species. Its presence here does have scientific value as the most southern extent of its range.
- The incorporation of an individual golden eagle nest locality near the project site goes beyond the level of detail in this report. However, the golden eagle is an uncommon resource and is "fully protected" by the California Department of Fish and Game. The proximity of this valuable resource to the proposed project site is a biological constraint.

Each of these issues will be given full attention when addressing the implications of individual project facilities; issues relating to effluent disposal will be discussed in the Draft Addendum.

Page 4-42 Open Space, Parks and Recreation

1) So noted.
2) Issues regarding effluent disposal will be addressed in the Draft Addendum.
3) So noted.
4) So noted.
5) Issues regarding effluent disposal will be addressed in the Draft Addendum.

Page 2-152 Riparian Woodland

So noted. Oaks apparently are harmed by abundant water. This statement has been deleted from the Final EIS/EIR.

Page 2-162 Santa Monica Mountain Fuelbreak

The Draft EIS/EIR addressed the condition of the area; not the impacts of the fuelbreak.

Page 4-41 Biota

The omission of this information from the impacts section of the report should not have been overlooked. Oak trees cannot tolerate excessive watering, and are particularly susceptible to this problem in the summer. This critical aspect of oak ecology will be thoroughly discussed in a draft addendum when discussing the impacts of spray irrigation on oak trees. The identification of literature on the subject by David Brown is appreicated.

Summary of Verbal Testimony of Donald Wood

- What is the problem that the document seeks to solve?
- Is year-round pumping into Malibu Creek an alternative proposal?
- Is Goat Butte considered as a site for a dam?
- The sewer is a problem, not a solution. Septic tanks should be considered.

(HE-132) 20

LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: DONALD WOOD

ADDRESS: 25622 HUCKLEBERRY DR, CALABASAS 91302

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. __X__ Severe ______ Moderate ______ Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? ______ Alt. 1 ______ Alt. 2 ______ Alt. 3 ______ Alt. 4 __X__ No Project

   Other: ____________________

3. Which solids handling disposal method do you prefer? ______ Sludge Farm ______ Landfill __X__ No Project

   Other: ____________________

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? ______ Alt. 1 ______ Alt. 2 ______ Alt. 3 ______ Alt. 4 ______ Alt. 5 ______ Alt. 6 __X__ No Project Other: ____________________

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies?

   STRICT LAND-USE CONTROLS.

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

I AM A RESIDENT OF THE AREA. ANY GROWTH-INDUCING "SOLUTION" WILL SUBSTANTIALLY DETERIORATE THE ENTIRE LAS VIRGENES AREA. PURELY FROM A "GREEN BELT"/CLEAN AIR PERSPECTIVE, WE CANNOT AFFORD TO USE ADDITIONAL SEWAGE FACILITIES TO PROMOTE GROWTH.

(HE-132) 87

25622 Huckleberry Drive
Calabasas, CA 91302

COMM CENTER
DEC 3 12 25 PM '76

REGIONAL HEARING CLERK
DEC 3 1976
REGION IX

30 November 1976

Environmental Protection Agency
Region IX
100 California Street
San Francisco, CA 94111

Gentlemen/Ladies:

This is in response to the Draft EIS/EIR Las Virgenes-Triunfo-Malibu-Topanga Area Wide Facilities Plan.

I would like to make a few observations about the EIS/EIR as a problem-solving document. I believe this would be appropriate since the Las Virgenes Municipal Water District allegedly has a problem, and the EIS/EIR is supposedly addressing some of the solutions.

First of all, I was truly amazed and dumbfounded at the lack of any discussion of the problem. I genuinely wanted to find some discussion of the problem. Exactly what is it? What are the causes? What are the effects? How can these causes and effects be documented? How long has the problem existed? What is its magnitude? Where are any data to explain the extent of the problem? What is the relation of the problem to other problems?

And I came up empty-handed. There are only vague references to "existing water quality problems in the various systems" (p. i) and the need to "prevent future problems" (ibid.). And we have the statement that "the problem of effluent disposal and wastewater reclamation is an acute problem" (p. 3-5). Really? Is that sufficient enough statement of such an acute problem to warrant the massive search for a solution represented in the EIS/EIR. I honestly do not see how any serious investigation can be attempted on such a flimsy base. There must be a thorough, clear, detailed, and documented statement of the problem before any problem-solving process can proceed.

Second, the next step in any problem-solving process is a clear and careful statement of criteria that the solution is expected to meet. What are the objectives for a solution? What standards should be met? Indeed, is not the whole process of compiling the EIS/EIR an attempt to meet one implied criterion for a project of this nature? One criterion is: the solution should not have any adverse impact upon the environment. Am I not correct in assuming that the primary job of the EPA is to see that that particular criterion is met? And yet, I could find no formal statement of criteria that any solution should meet.

I would like to suggest at least three criteria that should be carefully considered before there is any further discussion of alternative solutions:

(1) Any proposed solution should have no growth-inducing impact upon the Las Virgenes area. Indeed, I would submit that this

should be the overriding criterion/concern of the entire process. And yet this consideration is lightly dismissed with vague statements such as "All alternatives will involve secondary air quality impacts associated with the population growth which they accommodate. Measures will be implemented to mitigate this impact" (p. iv). In fact the three-page discussion on "growth accommodation" in the Las Virgenes area (Section 5.1.1) tries to play down the fact that any LVMWD sewer expansion will unquestionably be the major contributing factor to substantial growth in the area.

In fact, I would seriously question why the LVMWD should be considering any alternatives which admittedly will contribute to population growth when the present "problem" is that the Tapia WRF cannot handle sewage for the population it is servicing now! (But then, the problem has not yet been defined—so I am not sure what the LVMWD is trying to do.)

(2) Any proposed solution should not contribute to any degradation of the natural state of Malibu Creek. I believe this is an extremely important criterion that the EPA must concern itself with. But, again, it hardly seems to be a concern to the LVMWD planners. Their only concern is whether they might receive permission from the State Water Resources Control Board for year-round dumping into the Creek. Regardless of the SWRCB decision, should not the preservation of Malibu Creek be considered a viable criterion for any solution? Apparently not, for the EIS/EIR states, "Year-round discharge into Malibu Creek is a possible alternative, although it is inconsistent with the summer discharge prohibition . . ." (p. 3-5).

(3) Specifically, no alternative solution should in any way muck up the scenic and environmental qualities of a state park—Malibu Creek State Park. This certainly is not an unreasonable criterion. And yet Alternatives 1 and 2 specifically provide for a 145-foot high earth-filled "dam reservoir" for emergency holding of "processed sewage" (p. 3-3) in the center of one of the most scenic and fragile areas of the state park! I find the mere mentioning of such a possibility to be utterly without redeeming social value (i.e., "obscene").

Even though the EPA may feel that these are not valid criteria for this document, I certainly would like to see some sort of discussion of these criteria. Why are they not considered as criteria? What are the criteria which the proposed solutions should meet? And how were these criteria selected? Is "cost/benefit ratio" the only criterion considered?

Third, and finally, any problem-solving document certainly should consider all possible alternative solutions—even though most of them may eventually be ruled out because they do not meet certain criteria. (What criteria?) But in this document it is readily apparent that the only alternatives worth pursuing are those that are going to be profitable to the consulting firm involved in drawing up the document. I trust the EPA will cite the document for this obvious shortcoming.

Specifically, some of the alternative solutions which the EIS/EIR did not consider include the following:

(a) Improvement and expansion of septic tank systems. There is no reason why the Las Virgenes area needs to be developed any more densely than the growth that can be accommodated by septic sytems.

(b) Tertiary treatment systems. Is it not even appropriate to consider advanced technology systems which would enable us to completely recycle our water supply—instead of assuming the only feasible solutions are those which entail our throwing it (in some polluted form) into the ocean?

(c) Self-contained recirculating toilets. Again, technology can provide us with systems to recirculate our water supply within the confines of private residences (although this might not prove attractive to the consulting engineers).

(d) Dual systems to recirculate treated effluent. This should appeal to the engineering firms. Supply residential users with a dual system to allow us to use the treated effluent (in its present state) for lawn care and toilet flushing. Should not we at least investigate the cost feasibility of this possibility?

. . . And there are many more possible alternatives which were not considered in the EIS/EIR. These four are only a sampling of those that should be investigated. Maybe they are not feasible. Maybe they would not meet certain criteria (once the criteria are established). But, I feel that the omission of these—and other—possiblities is a serious deficiency in this document.

In short, the present Draft EIS/EIR is a totally inadequate report. It has no convincing statement of the problem/need. It contains no formal discussion of what criteria a solution should meet. And it is woefully inadequate in discussing alternative solutions.

It is a hollow document. It is pretty. It has slick maps. It is bulky. And, superficially, it looks like something that any bureaucrat could be proud of. But, upon close examination, it is found to be barren of any real content. To anyone looking for a real analysis of the situation, this EIS/EIR is an embarrassment.

Sincerely,

Donald N. Wood

Donald N. Wood

Response To Donald Wood
Verbal Testimony, Written Comments (#67), EIS/EIR Questionnaire (#20)

Response To Verbal Testimony

The acute problem of effluent disposal at the Tapia Plant is a result of: an overload of raw sewage coming into the plant that is not effectively handled within the present facilities (hence the ability to handle sludge has to be increased to the limits of effluent handling); the means of disposal (long-term contracts with buyers of wastewater for landscaping, irrigation, etc.) of the effluent has to be resolved or LVMWD could be without buyers of reclaimed water and no plans indicating what to do with it; and the Malibu-Topanga area needs to have some sewering plant (whether on-site septic systems, small treatment plans, or a tie-in to Tapia). These interacting factors convinced EPA to attempt to involve all jurisdictions and their specific sewering problems in an area wide plan to address the above problems and implement long-range planning per section 201 of the Clean Water Act.

Year-round pumping into Malibu Creek is not an alternative in this EIS/EIR at this time. However, the Draft Addendum will consider this as an alternative, as well as many other means of disposing of wastewater (such as those methods discussed in your comment) that cannot be sold for reuse.

Goat Buttes is no longer being considered as a site for a dam. See the Draft Addendum for alternative dam sites.

Response to Written Comments (#67)

These comments express the same concerns as those described in the Verbal Testimony. See above.

Response To EIS/EIR Questionnaire (#20)

It is the policy of SWRCB and EPA to provide Clean Water Grant funds for a project on a priority basis. The priority ratings are based on the criticality of the proposed projects. Under current regulations, each sewage entity is only allowed one grant for expansion of facilities.

The Tapia WRF was originally designed to be constructed in phases. At the present time, the Tapia treatment plant has a designed hydraulic capacity of 8 mgd; however, the solids handling capability is currently designed for 4 mgd.

The present plant was constructed with funds from a Clean Water Grant. At this time, the project now being considered is to bring the plant up to its full 8 mgd design capacity.

Available sewage treatment capacity is not considered growth inducing; rather, it is growth accommodating. Prior to construction of any expansion components of the Tapia WRF, LVMWD/ TCSD will be required by EPA to seek adoption of mitigation measures from appropriate agencies and entities empowered to implement such measures.

Summary of Verbal Testimony of Rod Bergen

- Alternatives dealing with new technologies were not discussed.
- Year-round discharge into Malibu Creek seemed to be a last minute consideration when it had been understood not to be an alternative.
- What are the environmental impacts of even 5 months dumping into Malibu Creek?
- Odor problems exist at the plant, worsening the air pollution.
- Draft EIS/EIR did not consider in-depth energy considerations; fantastic amounts of energy is required to bring water to the area, it should be reused.
- The report did not consult with Fish and Game Department and the studies they are conducting on fish ingesting controlled amounts of effluent.
- Developers should be required to provide sanitary systems, maybe EPA and other federal agencies should subsidize developers.
- Report does not deal fairly with septic systems.

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Calabasas, Ca. 91302

29 November 1976

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United States Environmental Protection Agency
Attention: Hearings Office HE 132
Region IX
100 California Street
San Francisco, California 94111

Reference: Draft EIS/EIR, Las Virgenes-Triunfo, Malibu-Topanga Area Wide Facilities Plan

Gentlemen:

The DRAFT EIS/EIR which has been prepared as a portion of the Las Virgenes-Triunfo, Malibu-Topanga Area Wide Facilities Plan has been reviewed in depth and has been found to be totally inadequate. (A point which was made repeatedly during public hearings on the 17th and 18th of November.) There is no question about the need for a positive regional wastewater treatment and disposal plan aimed at eliminating present and future water quality problems. To achieve such a program however, will require a team of qualified, objective organizations skilled in performing large-scale systems analyses. This letter addresses itself to establishing such a project and upon EPA approval of the concept, a formal proposal will be prepared and submitted.

I believe that a team comprised of small environmentally oriented businesses, at least one large organization from the aerospace, academic or "think-tank" community, concerned citizens groups, and the local water management company, all operating under EPA direction could best accomplish this task. The following is a broad outline of such an effort:

PROJECT TEAM (Tentative)

Small Business

- Systems Environments Assoc.
- Environmentally Balanced Systems, Malibu, Ca.
- EDAW, Inc. (or equivalent)

Project Manager (one of following)

- TRW
- RAND
- USC
- UCLA

Citizen Groups

Area Wide Facilities Citizen Committee
Berman Bill Committee

Water District

LVMWD

PROJECT PLAN

Problem Definition

Primary Source Data Acquisition

Systems Analysis

- Engineering
- Economic
- Environmental
- Health

Interactive Simulation

- Math Modeling
- Dynamic Parametric Analysis
- Future Projections

OUTPUTS

An overall wastewater management program

A proposed set of positive, viable, alternatives

A schedule of associated implementation methodologies

By addressing the true problem of an expanding population with ever increasing fresh water and wastewater requirements, this study effort will formulate a specific method for creating a cost-effective and environmentally sound policy.

Yours truly,

Rodney W Bergen

Rodney W. Bergen

Response to Rod Bergen
Verbal Testimony
Written Comment (#71)

Response to Verbal Testimony

Considerations for year-round discharge to Malibu Creek will be one of the many alternatives discussed in the Draft Addendum. This will allow all impacts of the continual discharge into Malibu Creek to be disclosed and reviewed.

As the planning effort gets down to more specific alternatives in the Draft Addendum, more specific information on air quality, inversion layers, energy consumption, septic tanks, and geologic formations will be discussed.

See response to comment #68 for a discussion on odor problems.

Tapia currently spray irrigates 1139 million gallons of treated wastewater annually. With appropriate weather conditions and an increased demand for reclaimed water from LVMWD customers this 1139 gallons figure could be increased. Each alternative in this EIS/EIR and the forthcoming Draft Addendum considers the reuse of wastewater, plus the disposal of the quantities of effluent that cannot be sold or that has to be disposed of by creek dumping due to winter weather.

The increase in cadmium deposits in the trout subjected to effluent was not found to be at a level that would be damaging to public consumption. The cadmium level was, however, higher than fish not subjected to the effluent.

Response to Written Comment (#71)

No response required.

Summary of Verbal Testimony of Kathleen Gordon

Testimony given at the Public Hearing reflects the following comments sent to EPA. A response for both the verbal, and two written comments (#72 a & b) follows.

(HE-132) 72a

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STATEMENT
to the
ENVIRONMENTAL PROTECTION AGENCY
on the
DRAFT EIS/EIR
LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA
AREA WIDE FACILITIES PLAN
by
KATHLEEN GORDON
November 18, 1976
Agoura, California

At last night's hearing in Malibu, many people expressed their disappointment in the EIS/EIR due to the limited range of alternatives which have been presented, and I share that disappointment. But it was explained last night that the EIS/EIR could only discuss those alternatives which appear in the Area Wide Facilities Plan. That may be reasonable as far as the EIS/EIR efforts are concerned -- but it appears we have spent half a million dollars on half a loaf. Where do the other alternatives get a chance to be discussed with as much detail as these few alternatives are in this document?

To begin with, I do not consider creek discharge as three different alternatives. The total effect is simply to dump our problems in somebody else's back yard -- whether Conejo, Calabasas or Malibu. The ocean outfall is also unacceptable, both from a cost-effective standpoint and from some of the possible health problems illustrated in Section 2.2.6 on Oceanography. Also, p.3-4 of Alternatives carries the distressing statement, "In the event of an upset, the plant will continue to discharge into the ocean."

That leaves land disposal. But there is discussion on page 3-4 of using 254 acres of the Morrison Ranch, and I believe I read in the newspaper just this week that the Morrison Ranch was sold for development. Based on the figure of one MGD per 100 acres for disposal, that cuts the possibility of that alternative back to 5.35 MGD -- hardly enough for our present capacity. So there goes that alternative!

There are two other alternatives thrown in: Alternative 7 on page 3-4 is the purchase of Malibu Creek from Tapia to Rindge Dam. This "Alternative" -- if you can call it that -- is so horrendous it could only have been included for its shock value! Malibu Creek in that area is both a Significant Ecological Area and a first priority Scenic Area.

That disposes of the alternatives listed in the EIS/EIR: those which were included in the Area Wide Facilities Plan. And we are left wondering what happened to really creative thinking? What about the beneficial use of reclaimed water through a dual pipe line system. At a time when all of California has had to face the facts about the real value of water, it seems an outmoded practice to use drinking water once then dump it. Add to the possibility of a limited supply of water, the Department of Water Resources predictions on the future costs of imported water, and we can't afford to ignore the possible uses of reclaimed water for golf course, greebelt and home landscape irrigation, agricultural uses, impoundments for use in fire-fighting, etc.

Another alternative which was favored by the original Citizens' Advisory Committee was use in recreational lakes -- even if tertiary treatment was required. I think the State Park system would look favorably on such lakes because certainly they would enhance our newly--acquired State Parks.

Other alternatives which must be discussed are self-contained systems and smaller, satellite systems which would reduce the impact of plant failure from a huge network system. I'm sure I haven't covered all of the alternatives which must be given at least as much attention as those few which have been given so much importance in this document.

The Las Virgenes Municipal Water District and the Triunfo County Sanitation District seem to feel they were thrown a curve when they applied for a grant to complete the solids handling capacity of Tapia and the EPA told them to include Malibu and Topanga in a full Area Wide Facilities Plan. But that's no excuse to limit their thinking to those few alternatives which have been presented. With a little creativity in the beneficial use of reclaimed water, the Water District could bring about the "greening of Las Virgenes."

Thank you.

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COMMENTS
on the
DRAFT EIS/EIR
LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA AREA WIDE FACILITIES PLAN
by
KATHLEEN GORDON
November 29, 1976
Westlake Village, California

Thank you for the opportunity of commenting on the Draft EIS/EIR for the Las Virgenes-Triunfo-Malibu-Topanga Area Wide Facilities Plan. I am enclosing a copy of my statement at the November 18, 1976 Hearing on this document, at which time I stated that I would submit my specific comments in writing.

It is my understanding that the EPA will be making any decisions with regard to any alternative (Section 5.0 Comments, Summary). I would have to say that, based upon the information as presented, I would consider "No Project" as the only logical Alternative until such time as the full range of alternatives could be explored. According to the EPA Rules and Regulations on the Preparation of Environmental Impact Statements, Subpart C, Sec. 6.304 (a), "the draft EIS may treat all feasible alternatives at similar levels of detail..." This EIS not only did not treat all feasible alternatives, it did not treat the most feasible alternatives.

In the same Section (c) (4) "If a conflict appears to be unresolved in the EIS, EPA should explain why it has decided to proceed without full reconciliation." I believe that such a conflict is represented in discussions of Discharge to Malibu Creek when the NPDES Hearing will not take place until January. Why did EPA elect to proceed before that conflict is resolved? I would hope that the outcome of that hearing is not considered to be a foregone conclusion.

It is unfortunate that the maps in the EIS are, for the most part, unreadable, making it impossible to relate their content to the existing area.

p. 1-6.	There is no mention of the formation of the original Citizens' Advisory Committee for Las Virgenes, February 19, 1974. Nor is there mention of the formation of the new Citizens' Advisory Committee this year.
p. 1-9.	Why was the reclamation and recycling of waste water through dual pipe lines for irrigation not discussed as an Alternative?
p. 1-10.	Creek Discharge as discussed in this section reads as advocacy. Where in this document is there any discussion of the cumulative effect of creek discharge?
p. 1-11.	The third paragraph is confusing. How does one "validate" and "supplement" land use plans, and who determines which land use plans are "applicable"?
p. 1-11.	Some mention should be made of the recommendation made by the original Citizens' Advisory Committee, which was for a series of recreational lakes. The fact that "workshops" were held cannot of itself be an indication of effective citizen participation. Some indication must be given of the reception and disposition of citizen input.
Fig. 53.	The Map containing the Mulholland Scenic Corridor is not accurate. A correct map may be obtained from the Los Angeles County Department of Regional Planning.
Fig. 53.	Dume/Kanan Road is also a First Priority Scenic Route. (Los Angeles County Scenic Highway Element)
p.2-164.	The Mulholland Scenic Corridor Citizens' Advisory Committee withdrew their recommendation for a resource management zone in the Mulholland Corridor.
p. 2-164.	Should current information be required regarding the Mulholland Scenic Corridor, I will be happy to supply it, as I am Chairwoman of the Los Angeles County Mulholland Scenic Corridor Citizens' Advisory Committee.
p. 2-190	There should be no uncertainty of the figures because the potential development within the TCSD in both North Ranch and Metropolitan Development Corporation's Oak Park is now in progress.

p. 2-191. Another agency which will be in existence in January of 1977 is the State Commission for the Santa Monica Mountains Comprehensive Plan.

p. 2-196. The statement that special land-use planning studies for increased park and open space acreages and decreased urban expansion has tended to lower values of undeveloped land is not supported by fact. Land adjacent to parks and scenic corridors may, in fact, increase substantially in value. (*Economic and Social Effects of Highways*, U.S. Department of Transportation, Federal Highway Administration, 1972.)

p. 2-237 If I am not mistaken, the LVMWD has determined that the odor was a result of inadequate treatment of the sludge and they have since installed a third blower for oxygen to control the odor. "Raising questions of credibility on both sides," is a poor choice of words.

p. 2-238 According to the population projections, the "agreed-upon usage" of the Tapia Treatment Plant by Triunfo will not begin to accommodate the growth anticipated in both North Ranch and Metropolitan Development Co's. Oak Park. What does the TCSD anticipate doing when the growth on their side outstrips their "agreed-upon" capacity of Tapia?

p. 3-3. The Tapia Treatment Plant had an additional "upset condition" in July of this year. It would be difficult for the public to document the number of "upset conditions" the Tapia Treatment Plant has actually had, since the LVMWD has been reluctant to reveal them to the public.

p. 3-2. Alternative 1 has three different parts to it: Irrigation of Calabasas Golf Course, which is a beneficial use of reclaimed water, and should be encouraged; dumping in Calabasas Creek, which is not a beneficial use, and the Goat Buttes reservoir which is on State Park property. Instead of dumping in Calabasas Creek, why not take the water lines on across the Ventura Freeway for use at: 1.) Treeland Nursery; 2.) The park on Shoup; 3.) The park on Topanga; and finally, to the Pierce

College pastures? From Calabasas, it would be gravity flow the whole way. Placing a reservoir in the highly scenic area of Goat Buttes should not be considered. Since this area is discussed in other Alternatives, a discussion of alternative sites for the reservoir must be included.

Fig. 76 This is looking south on Clabasas Parkway towards Stokes Canyon. Calabasas Creek and the Ventura Freeway are not in the picture.

Figs. 75, 77, 79 and 81: The maps are unreadable. It is impossible to tell the location of the proposed facilities.

p. 3-4. See my statement at the Hearing for an update on the Morrison Ranch.

p. 3-5. The possibility that the plant would contiue to spray irrigate if the plant were in an "upset condition" raises serious health questions due to wind-blown contaminants.

p. 3-5. There are advantages to the "no project" alternative if the only other alternatives are the ones discussed in the EIS/EIR. A "no project" alternative for a specific period of time, until all alternatives can be explored, may be better than having to choose from the alternatives presented.

p. 3-5. There is an unresolved conflict between the alternative of year-round discharge to Malibu Creek and the January NPDES Hearing of the Regional Water Quality Control Board. Until that conflict is resolved this should not be included as an alternative.

p. 3-5
3-6 Alternatives 5, 6, and 7 remove the incentive for the beneficial use of reclaimed water.

p. 3-6. Was there any definitive virus study, or did not the LVMWD Board of Directors refuse to fund it?

111<

p. 3-6 Alternative 7 does not discuss the fact that Malibu Creek and the canyon walls alongside it is a Significant Ecological Area and is listed as, "Spectacular Canyon. Excellent combination of habitats, GOOD riparian, one of last streams in county with native freshwater fish, incl. apparent last run of steelhead in county." (Los Angeles County Environmental Resource Committee.) Malibu Canyon is also a First Priority Scenic Highway route (Los Angeles County Scenic Highway Element). and Malibu Canyon in ranked tenth out of 67 in the California Department of Parks and Recreation Province Landscape Preservation Study. Use of this area for the disposal of sewage effluent is not compatible with its importance as a unique scenic area.

p. 3-6. If Alternatives 6 and 7 are analyzed in the Final EIS there would be no opportunity for public response.

p. 3-6 If further work is necessary to define Alternatives 6 and 7 after the RWQCB Hearing to establish discharge requirements, a supplementary EIS should be drawn up exploring those alternatives.

p. 3-7 What alternatives for solids handling have been considered with less serious consideration than those listed?

p. 3-8 The disposal of sludge on a 110 acres site adjacent to Mulholland Highway is unacceptable as the sight and smell would severely impact the hiking, bicycle riding and horse back riding activities planned for the proposed Mulholland Scenic Corridor trails.

p. 3-8. Re: Land Disposal: The City of Los Angeles and the County Sanitation Districts of Los Angeles County are currently investigating pathogen survival through various sludge treatment processes. Their purpose is to monitor agricultural and land application projects to assess 1) pathogen survival during sludge processing and 2) pathogen survival in the soil and possible transmission to harvested crops. (*Phase I Report*, *LA/OMA Project*, August, 1976, p. VII-51.)

p. 4-9 Why was Goat Buttes, a highly scenic area within our State Parks system, the *only* site considered for the stand-by reservoir?

p. 4-11 There is no doubt that the proposed Goat Buttes reservoir could not be compatibly developed and in concert with the goals and policies of the State Park and Recreation Department.

p. 4- 11 The Hope and Reagan Ranches were also designated "State Park" areas, therby reducing their potential for the use of reclimed water for landscape irrigation.

p. 4-15. The concern of the Ventura County Flood Control District that the increased effluent in Calleguas Creek may increase algae, weed and brush growth are the same concerns that private citizens have over increased effluent in Malibu Creek.

p. 4--20 What is there to limit the flow of the ocean outfall to 8 MGD? This would appear to be an open invitation to expand the Tapia Plant to 16 MGD, even if it were not to include Malibu and Topanga.

p. 4-20 Why must ocean outfalls be "designed to achieve rapid initial dilution and effective dispersion to minimize concentrations os substances not removed by treatment", when the District is applying to dump into Malibu Creek without *any* dilution or dispersion?

p. 4-29. The statement that, in the event of a treatment plant failure, primary quality effluent would be discharged into the ocean, and that the over-chlorination which would be necessary would have a harmful effect on the phytoplankton is a strong argument against ocean outfall.

p. 4-31. What control would the Coastal Commission have over the construction of an ocean outfall?

p. 4-36. Morrison Ranch has been purchased for development and is no longer available as an Alternative.

p. 4-39. Runoff to Malibu Creek and discharge to Malibu Creek present identical problems of potential exposure of recreational water contact users to pathogens within the water.

p. 4-40 It would appear that the site for the new balance/storage reservoir has some geologic problems. The maps are of such poor quality that it is impossible to tell precisely where the storage reservoir is to be located. However, it will be situated upstream of a densely populated area. Are there no alternate sites for that reservoir that do not present so many potential hazards?

p. 4-42. The impact of the irrigation lines and the visible spray might be considered to be an asset in scenic areas, since the lines are soon hidden by lush vegetation, and the visible spray is quite refreshing in the summertime.

p. 4-43 The Calabasas Golf Course is to the east.

p. 4-44. If the original planning of Tapia WRF was for it to be expanable. What is to prevent its expansion beyon 8 MGD. in order to accommodate the growth in TCSD?

p. 4-45. The projected life of the Calabasas landfill site is 25 to 30 years (Los Angeles County Solid Waste Management Plan, p. 49), how long is the Tapia WRF going to last?

p. 4-45. See my previous comment with regard to the LA/OMA study investigating pathogen survival in land application. The sight and the stench of 31,400 gallons of slurry per day would greivously impact activities in the proposed Mulholland Scenic Corridor.

p. 4-46. There is no discussion of the possibility of wind-blown dust carrying pathogenic bacteria, viruses, etc, from the sludge farm to adjacent areas.

p. 4-57. What is the effect of the free chlorine residual on the fish and wildlife?

p. 5-1. Since the total composite of growth-inducing factors except one - sewage treatment facilities - is present in Malibu, and their growth has been far more moderate than Las Virgenes, there is little validity in the first paragraph. It would be far more direct to say without equivocation, the presence of sewage treatment facilities, and the extension of sewer lines to undeveloped areas stimulates growth in those areas. The policy of the District has been to oversize lines to areas where they forsee the possibility of growth.

p. 5-2. The manner and timing of growth which could take place without the sewage facilities suggested by the Area Wide Facilities Plan would be substantially different than the growth that will take place with the implementation of Alternatives 1,2,3, and 5 which do not place any constraints on how much the Tapia WRF can be expanded.

p. 5-4 The current posture of the LVMWD has been one of isolation from other planning efforts which, with the AWFP, could constitute comprehensive planning. Perhaps they should take the first step in offering their cooperation to the County General Plan staff and citizens' committee; the Coastal Commission; and the new State Commission for the Santa Monica Mountains Comprehensive Plan.

p. 5-5 In the discussion of the cost factor for self-contained sewage treatment systems, it would appear that the citizens are to be required to finance the costs of expanded sewage treatment so that the privated developer may construct and market his projects at a more competetive price! Again, the LVMWD appears more anxious to accommodate the developer than their existing customers.

p. 5-7 If the potential population of the TCSD is more than double the TCSD capacity share of the Tapia WRF, why is there no discussion of the Alternative of separating the two Sanita-

Districts and letting Triunfo use the money to build their own sewage treatment plant near where the growth would be. If they built it to the north of their developments it would have the added advantage of having gravity flow for the provision of reclaimed water, rather than having to pump it uphill from Tapia.

p. 5-8 There is a detailed traffic circulation study currently being written and edited by the Route 1/64 Committee.

p. 5-27 If the AWFP accommodates the maximum populations, how can there possibly be a reduction of emissions?

p. 5-30 There is no discussion of the impact of the maximum population in this area on the air quality of the San Fernando Valley and the Los Angeles Basin.

p. 6-3 There can be no attempt to restrict growth in new areas by using sewer moratoriums, indeed, the counsel to the LVMWD has deemed such moratoriums to be illegal. Therefore, the impact of this "no action" would be the same as it is now--nil.

p. 6-3 and 6-6 The District has long avoided coordination with land use planning. It has consisted of responding to the Los Angeles County Department of Regional Planning with a letter affirming their capability to provide service to the proposed development. Only very recently has that form letter been revised to recognize that the LVMWD has only limited capacity to process sewage. The philosophy has been that the LVMWD could only accommodate the land use decisions made by the Los Angeles County Department of Regional Planning.

p. 7-15. How would final AWFP efforts be balanced with control of growth and traffic related to secondary air quality impacts, land use planning objectives, etc?

p. 8-8. It would be more accurate to state that the residents of this area want planned growth which is timed and controlled so as not to impact existing areas either environmentally, socially or finacially.

Response to Kathleen Gordon (#72a and b)

Response to Written Comments (#72a)

The Draft Addendum will develop alternative systems such as you suggest and determine the environmental impacts of the various systems. A dual line system will be discussed regarding the potential health hazards associated with it. Recreational lakes will also be described as will self-contained systems or satellite systems.

Response to Written Comments (#72 b)

The Draft Addendum will cover a full range of alternatives.

Page 1-6	Refer to Introduction, page 1-5.
Page 1-9	This will be discussed thoroughly in the Draft Addendum.
Page 1-10	Cumulative effects of creek discharge will be addressed in the Draft Addendum.
Page 1-11	The land use plans were validated as to their present status, implementation, and policies and have been supplemented to reflect their current status as necessary and a composite plan of contiguous planning agencies was developed.
Page 1-11	See update.
Fig. 53	Updated and corrected.
Fig. 53	Updated and corrected.
Page 2-164	So noted.
Page 2-190	Updated and corrected.
Page 2-191	So noted.
Page 2-196	So noted.
Page 2-237	A third blower was installed in January, 1977, thus alleviating the odor problem.
Page 2-238	In order to service the entire projected population, it is anticipated that further study will occur during the preparation of the Draft Addendum and an areawide sewer management plan, with various alternatives, will be considered.
Page 3-3	The plant upset that occurred in July, 1976 was the result of a failure in the control system. This has since been redesigned, and a back-up, independent system has been installed to forestall any future upsets of this kind.
Page 3-2	The City Council of the City of Hidden Hills has passed an ordinance requiring all new developments to have dual water systems to enable the use of reclaimed water for use by the homeowners.
Figure 76	Noted and corrected.
Figure 75, 77 79 and 81	Noted and corrected.

Page 3-5 The spray irrigation in an upset condition would only occur on purchased or leased LVMWD land.

Page 3-5 This will be discussed in the Draft Addendum.

Page 3-5 The issue has been appealed to the State Water Resources Control Board and has not been resolved at this time.

Page 3-5,
36 All alternatives result in the use of reclaimed and treated water; it is the excess effluent that cannot be sold for irrigation, landscaping, etc. that is being considered in the EIS/EIR and the Draft Addendum.

Page 3-6 The State Water Resources Control Board did not fund the virus study because another virus study was being conducted at Pomona, and it was decided that a duplication of efforts, and expenditures of money and time, was not necessary.

Page 3-6 These factors are known and will be included in the study of Malibu Creek in the Draft Addendum.

Page 3-6 Public comment on all alternatives will be possible after the Draft Addendum is published.

Page 3-7
3-8 See Sludge Management, section 3.3.

Page 3-8 Information noted.

Page 4-9 The site was chosen initially on engineering factors only, other factors were not included. The site, however, is not now being considered for a reservoir.

Page 4-11 This is true, and the possibility of putting a dam at Goat Buttes is no longer feasible. Other alternatives will be defined in the Draft Addendum.

Page 4-11 The possibility still exists for State Park areas to use spray effluent for landscape purposes. This will be discussed in the Draft Addendum.

Page 4-20 The Tapia WRF was originally designed to be constructed in phases. At the present time the Tapia treatment plant has a designed hydraulic capacity of 8 mgd; however, the solids handling capability is currently designed for 4 mgd.

The present plant was constructed with funds from a Clean Water grant. At this time the project now being considered is to bring the plant up to its full 8 mgd design capacity.

Page 4-20 This is the criteria set down by SWRCB.

Page 4-29 This concern will be addressed in the Draft Addendum.

Page 4-31 Section 30412 (c) of SB 1277 legislation indicates that:

"(c) Any development within the coastal zone or outside the coastal zone which provides service to any area within the coastal zone that constitutes a treatment work shall be reviewed by the commission and any permit it issues, if any, shall be determinative only with respect to the following aspects of such development:

(1) The siting and visual appearance of treatment works within the coastal zone.

(2) The geographic limits of service areas within the coastal zone which are to be served by particular treatment works and the timing of the use of capacity of treatment works for such service areas to allow for phasing of development and use of facilities consistent with this division.

(3) Development projections which determine the sizing of treatment works for providing service within the coastal zone.

The commission shall determine whether the treatment works complies with the provisions of this division and shall make its final determination on a permit application for a treatment work prior to the final approval by the State Water Resources Control Board for the funding of such treatment works. Except as specifically provided in this subdivision, the decisions of the State Water Resources Control Board relative to the construction of treatment works shall be final and binding upon the commission and any regional commission."

Page 4-36 Although Morrison Ranch may not now be an alternative site for effluent disposal, the impacts were delineated since the site had not changed ownership prior to publication of the study.

Page 4-39 This issue will be studied in the Draft Addendum.

Page 4-40 Additional alternative sites for the balance/storage reservoir will be discussed in the Draft Addendum.

Page 4-42 So noted.

Page 4-43 So noted.

Page 4-44 Clean Water Grant monies were expended to the Tapia Plant for a 8 mgd facility. The present proposal is to expand the solids handling facilities from the 4 mgd it presently handles to 8 mgd per the original Clean Water Grant.

Page 4-45 The plant is funded for 8 mgd and with proper maintenance and operational controls, the plant will last as long as the demand for the plant exists.

Page 4-45 Noted.

Page 4-46 See Sludge Management section, pages 4-25 to 4-27.

Page 4-57 Chlorination is generally regarded as the most acceptable method of effluent disinfection for protection of public health where disinfection is required to meet water quality objectives. Tapia WRF utilizes chlorination to disinfect its effluent and then proceeds to dechlorinate the effluent with sulfur dioxide, which results in an extremely low chlorine residual (approximately .1 mg/l). This small quantity of chlorine residual would, to a minor extent, continue disinfecting natural bacteria in the creek and would be of minor impact to fish and wildlife.

Page 5-1 Opinion noted. The policy of the District is not to oversize lines, but to respond to land use factors and adopted or defacto planning policy.

Page 5-2 The Tapia treatment plant was originally designed to be constructed in phases with a maximum capacity of 8 mgd. The first phase only allowed a 4 mgd operating capacity. This phase was accomplished with funds from a Clean Water Grant. At this time, the project now being considered is to bring the plant up to its' full operating capacity. This phase is considered a continuation of the initial grant.

The expansion of Tapia is not a growth inducing project; rather, it is a growth accommodating project which does not enable the servicing of the entire projected population for the LVMWD/TCSD area.

Page 5-4 Availability of Clean Water Grant Funds is limited by the expiration dates set by the Federal and State Acts; thus, in order to qualify for State and Federal funding, the sanitation districts and the water district have had to proceed based upon currently adopted or defacto planning policies. Planning currently being undertaken by those named agencies will not be completed prior to the expiration date of the State and Federal funds.

Page 5-6 Opinion noted. This concern will be addressed in the Draft Addendum.

Page 5-7 This is a possibility, assuming that the joint powers agreement can be dissolved, or restructured. This will be discussed in the Draft Addendum.

Page 5-8 Noted.

Page 5-27 Reduction in emissions is due to the phasing out of older, more polluting automobiles and the stricter emission control program for new automobiles; however, the greater quantities of VMT and greater numbers of vehicles do reduce the benefits of these controls, so that a leveling does occur and a subsequent increase begins.

Page 5-30 The analysis presented is a comparative analysis of the entire South Coast Basin related to the study area. The San Fernando Valley and Los Angeles are contained within the South Coast Air Basin. Refer to last paragraph on page 5-28 of the Draft EIS/EIR.

Page 6-3 It is not a recommendation here to place a sewer moratorium on new development since new growth in this area can be accommodated by private sewage treatment facilities. A recommendation (if one were to be made) would be limited in its value.

Page 6-3
and 6-6 See prior response to this comment, (noted as page 5-4).

Page 7-15 If it is found that the on-going planning would more clearly define the sewage treatment needs of the area, any constructed facilities would respond to that need. At this time, the SWRCB could require that flow restrictions be implemented to correspond to planned and desired growth rates of the local planning agencies.

Page 8-8 See above response.

Summary of Verbal Testimony of Hal Lyon, Malibu Chamber of Commerce

Concerns expressed in the verbal testimony are parallel to those expressed in the written testimony with these amplifications or additional points:

- It is time to establish health standards or guidelines as to the amount of viral particles within the effluent.
- Effluent disposal into Conejo and Calabasas Creeks should not have been eliminated without further study.

A response to these concerns follows the written testimony.

(HE-132) 73

Malibu CHAMBER OF COMMERCE
22821 Pacific Coast Highway • Malibu, California 90265 • 456-2587

DEC 6 2 26 PM
RECEIVED
REGIONAL HEARING CLERK

November 30, 1976

DEC 6 1976

REGION IX

Environmental Protection Agency, Region IX
Attention: Hearings Office HE-132
100 California Street
San Francisco, California 94111

Gentlemen:

The following points critique the Draft EIS/EIR Las Virgenes Triunfo Malibu-Topanga Area Wide Facilities Plan:

ii Alternatives

The assumption of winter discharge into Malibu Creek is false and arbitrary. The Chamber feels no discharge into Malibu Creek should be the basis for LVMWD alternatives. This also eliminates alternative 6 and 7.

1-11 - 1.3.3 Malibu and Topanga Areas

This paragraph is biased and false. The presumption that septic tank systems are inadequate is solely the thinking of LVMWD and Boyle Engineering. No investigation of the actual efficiency and safety of the septic tank system is included in the EIS nor is it considered as a true alternative.

1-12

This statement is false. The document does not fully document or describe any of the problems, alternatives.

2.2 through 2 - 43

This section of 41 pages deals with air pollution which is minimal and which in all probability will remain minimal for many years. However, the wind patterns for the entire year are completely analyzed as are the pollution problems of the entire basin. This section is entirely superfluous.

2.2.6 Oceanography 2 - 76 through 2 - 89

Thirteen pages of the EIR are devoted to the current flow and no mention is made of the onshore tidal currents directly off the Malibu Lagoon which is the major point of contention in the EIR.

The information is really available from the L.A. County Life Guards. The tidal current flows south across the mouth of the lagoon to Malibu pier, west, and then north to one mile north of the lagoon mouth and then back south along Malibu Colony Beach. In addition, no mention is made in the EIS of the immense recreational population in attendance all year round at Surfrider's Beach and Malibu Lagoon. From January through October of 1976, over 690,000 people bathed in these waters.

2 - 89 Paragraph 2 and Paragraph 3

Totally inadequate statement showing no investigation whatsoever.

This once again points out the biased preconceived basis of the EIR.

2 - 105

The avoidance of demersal fish of water mass changes as stated should also be correlated to the ever increasing effluent flow into Malibu Creek if all year dumping is allowed.

2 - 110

The increase of nitrogen nutrients already known to be extremely high in LVMWD effluent would effectually change the local condition off Malibu Lagoon wnd within the lagoon itself.

2 - 114

Since no adequate method of viral determination can be made and since no agency can state what is safe or not safe, the Chamber feels no effluent should be put into the creek until such determinations are made.

2 - 117 and 2 - 118

Refer back to statement about intense recreational use of Surfrider Beach and Malibu Lagoon.

2 - 119

The fact that no epidemic outbreak is traceable does not mean infections from hepatitis to fungi are uncommon. To the contrary, the incidence of viral and fungal infection is higher than should be expected even from this heavy recreational population.

2 - 237

As sanitation chairman, a registered pharmacist and having taken several courses in sanitary engineering, I am familiar with the odor of decaying matter and purines. I drive Malibu Canyon every night en route from my store in Malibu to my home in Canoga Park. Virgually every night as I leave Malibu tunnel 1/2 mile from Tapia plant of LVMWD, I smell H_2S (hydrogen sulfide. The only sulfide source of that smell is Tapia!

3.2 Effluent Disposal at Tapia WRF

This paragraph represents one of the crucial problems in the LVMWD. Improper and negligent planning for spray fields based on the assumption of dumping into Malibu Creek is the prima facie cause of the District's inability to dump its effluent. Improper planning also does not allow that effluent to be best used for conservation of a precious resource.

3.2.3 Alternative 3 - Ocean Outfall

This is a poor excuse and an even more poorly disguised ploy for creek dumping.

3.2.6 Other Effluent Disposal Alternatives Considered

The main push of LVMWD is suddenly not to be considered as a proposal or alternative in this area wide plan.

If the reasons advanced are sufficient not to consider Malibu Creek dumping for the area wide plan, then NO EFFLUENT SHOULD BE DUMPED IN MALIBU CREEK AT ANY TIME!!!

The most important aspect of Tapia discharge, its effect on PEOPLE has been glossed over to the extent one would suspect no one lives or plays downstream of Tapia Plant, the most important virus study has three lines in some 400 pages, public health takes a total back seat to engineer day dreams.

4.1.1 Alternative 1 - Disposal to Calabasas Creek

No real indepth discussion of cost or cost comparisons of any of the alternative methods are shown.

The paragraph regarding the Department of Health's approval of the effluent dumping to the Sepulveda basin (NO WATER RECREATION) is significant, particularly since no such approval has been granted for Malibu-Pacific Ocean area.

4.1.2 Alternative 2 - Disposal to Conejo Creek 4 - 18

Open space Parks and Recreation.

The opposition of the State Department of Parks and Recreation's use of parkland for effluent runoff is completely glossed over and in fact ignored.

4.1.3 Alternative 3 - Ocean Outfall

Once again, currents and tides are hastily, sketchily and inadequately described and are not ascertained with any fidelity at all.

4.1.4 Alternative 4 - Land Disposal

Pathogen problems being non existent, is also an excellent criteria for No Project Septic Tank methods.

4.3 Page 4 - 56

Paragraph: Wintertime Discharge

The conclusion drawn is that of LVMWD, and NO ONE [illegible]!

Page 4 - 57 - Volumes of discharge, does this include accidents and drips and overflows?

Page 4 - 62

Since the EIR states specifically viral studies are incomplete and difficult and not well carried out (2 - 114) statement 1. on this page is inconsistent and contradictory to the EIR.

Asthetics - conclusions are those of LVMWD, not the residents of the Creek who have been there longer than Tapia Plant.

5.0 - Secondary Impacts of Alternatives - 5.4

"It is not expected availability of sewage treatment facilities or increased capacity of the Tapia WRF would enable the 'opening up' of major new areas of development."

This is putting the cart before the horse.

If more houses are built, Tapia can be expanded and will be expanded.

Page 5 - 6

More people, more need for expansion, more effluent to dump. EIS/EIR does not consider the effect of 8 - 16 - 32 or 64 MGD dumped into Malibu Creek.

6.2 - 6.3

First admission of lack of backup facilities as has been ordered by SWQCB.

Conclusions drawn by LVMWD (not EPA) in area-wide plans are again biased, and based upon preconceived notions, i.e. Malibu Creek discharge; no land available for spraying; no other alternative economically viable to LVMWD.

In summary, the Malibu Chamber of Commerce feels a great deal of time and money have been expended in the preparation of a Facilities Plan that is virtually useless as a reference document and one (a Plan) that, in effect, ignores the basic considerations required of such a Plan. It is for this reason, the Chamber recommends further consideration of the Summary Draft EIS/EIR be discontinued and serious consideration be given to the methodology that should be employed to arrive at an effective basis for public consideration and comment.

Harold H Lyon,

Harold H. Lyon, Pharm. D.
Chairman, Sanitation Committee
Malibu Chamber of Commerce

HL:fc

Response To Harold H. Lyon, Malibu Chamber of Commerce Verbal Testimony and Written Comments (#73)

Response To Verbal Testimony

These concerns deal with effluent disposal and, as such, will be addressed in the Draft Addendum.

Response To Written Comments (#73)

The following responses are addressed point by point reflecting the comments made by the Malibu Chamber of Commerce representative:

ii Alternatives

Opinion noted. Questions concerning creek discharge will be discussed in the Draft Addendum.

1-11 - 1.3.3 Malibu and Topanga Areas

The information in the paragraph is based on reports from the County of Los Angeles. Neither LVMWD or Boyle Engineering have jurisdiction in the Malibu and Topanga areas.

1-12

This EIS/EIR is a full disclosure document and is to address the environmental impacts associated with each alternative as described in the Area Wide Facilities Plan.

2.2 through 2-43

Air quality along the coastline is usually better than that of the inland areas. Because of the possibility of growth in the study area and since the study area is in the South Coast Air Basin, data and conditions for the entire basin had to be considered.

2.2.6 Oceanography 2-76 through 2-89

Ocean impacts and impacts to Malibu Lagoon are issues to be addressed in considering the Malibu/Topanga alternatives and the effluent disposal alternatives; therefore, it will be addressed in the Draft Addendum.

The EIS does include (page 2-210) a table which indicates number of visitors to beaches in the study area.

2-89 Paragraph 2 and Paragraph 3

This information was contained in a 1973 publication by the Southern California Coastal Water Reserach Project entitled The Ecology of the Southern California Bight: Implications for Water Quality Management.

2-105

Comment noted. This issue will be addressed in the Draft Addendum.

2-110

It is estaimated that by calculating the average nitrogen content of Tapia effluent that the total 1975 quantitiy of nitrogen disposed by both land and creek was approximately .018 M tons. When this is compared with the natural quantity of nitrogen brought into the coastal waters by upswelling, as well as the surface runoff and drainage inputs, this figure becomes insignificant.

2-114

So noted.

2-117 and 2-118

It is recognized that Malibu Beaches and the Lagoon are intensively used for recreation. This use would present an inherent risk for contracting diseases if those waters were adversely impacted. These impacts are to be addressed in the Draft Addendum.

2-119

Opinion noted.

2-237

The current odor problem is a result of a system overload in the processing of sludge. The overload situation and the odor problem will be corrected by expanding the facilities to effectively process sludge within the capacity of the Tapia plant.

3.2 - Effluent Disposal at Tapia WRF

Effluent disposal is a problem at the Tapia WRF and will be the topic of a new Draft Addendum.

3.2.3 Alternative 3 - Ocean Outfall

An ocean outfall is a method for effluent disposal and, as such, will be covered in the Draft Addendum.

3.2.6 Other Effluent Disposal Alternatives Considered

Wintertime discharge and summertime discharge into Malibu Creek are two entirely different situations. The RWQCB recognizes the inherent differences and has only granted permits for wintertime discharge and developed standards which must be met for wintertime discharge.

Effluent disposal alternatives will be studied and addressed in the Draft Addendum.

4.1.1 - Alternative 1- Disposal to Calabasas Creek

The issues involved in determining cost comparisons and the cost comparisons will be addressed in the Draft Addendum.

4.1.2 Alternative 2 - Disposal to Conejo Creek - 4-18, Open Space, Parks and Recreation

The effluent disposal alternatives, as stated before, will be discussed in a Draft Addendum. At this time, the potential for a stand-by reservoir in Malibu Creek State Park has a very low probability and is being re-evaluated.

4.1.3 Alternative 3 - Ocean Outfall

4.1.4 Alternative 4 - Land Disposal

4.3 Page 4-45, and

Page 4-57

The issues involved in these four comments will be thoroughly addressed in the Draft Addendum.

Page 4-62

It has been assumed that the addition of water into Malibu Creek enables vegetation to proliferate and creates an attractive landscape. The landscape is enhanced by a flowing water rather than a potential dry creek bed. This has been described here as a positive asthetic benefit.

5.0 - Secondary Impacts of Alternatives - 5.4

It is the policy of SWRCB and EPA to provide Clean Water Grant funds for a project on a priority basis. The priority ratings are based on the criticality of the proposed projects. Under current regulations, each sewage entity is only allowed one grant for expansion of facilities.

The Tapia WRF was originally designed to be constructed in phases. At the present time the Tapia treatment plant has a designed hydraulic capacity of 8 mgd; however, the solids handling capability is currently designed for 4 mgd.

The present plant was constructed with funds from a Clean Water grant. At this time the project now being considered is to bring the plant up to its full 8 mgd design capacity.

Available sewage treatment capacity is not considered growth inducing; rather, it is growth accommodating. Prior to construction of any expansion components of the Tapia WRF, LVMWD/TCSD will be required by EPA to seek adoption of mitigation measures from appropriate agencies and entities empowered to implement such measures.

Page 5.6

The effects of long-term area wide sewage management plans will be addressed in the Draft Addendum.

6.2 - 6.3

EPA has directed the preparation of this EIS/EIR and has had final review authority over contents and conclusions contained therein.

(HE-132) 77

Presentation By
MONTE NIDO VALLEY PROPERTY OWNERS ASSOCIATION

at the
Public Hearings on Draft Environmental Impact Statement

Draft Areawide Facilities Plan for
Las Virgenes
Triunfo
Malibu
Topanga

November 17, 1976
Webster School
Malibu

November 18, 1976
Agoura High School
Agoura

Monte Nido Valley
Property Owners Association
P.O. Box 54
Calabasas, California 91302

I.

The Monte Nido Property Owners' Association is a non-profit organization of home owners living in the Monte Nido Valley in the central portion of the area studied in the Draft Areawide Facilities Plan. We have had an interest in water and waste management practice in the Las Virgenes area for years and welcome this opportunity to present our views on the proposed plans for disposal of the effluent from the Tapia Waste Treatment Plant. Although we believe that citizen participation in this planning policy leaves much to be desired, we support the planning effort being made in the development of an Areawide Plan. It is our belief that the Facilities Plan should be concerned not merely with the disposal of waste, but also with the maximizing of the beneficial uses of water and wastewater in the most cost-effective manner with proper respect for environmental considerations.

II.

There are several aspects of the Facilities Plan and its Environmental Impact Statement on which we would like to comment. One of the more troubling aspects of the Areawide Facilities Plan and the Environmental Impact Statement is the discussion in each of the possibilities for and consequences of direct year-round discharge of the effluent from the Tapia plant into Malibu Creek. Both the Areawide Plan and the E.I.S. take a curiously inconsistent approach toward this topic. In the Introduction to the Areawide Plan (p. I-8) possible alternative disposal methods for Tapia Plant effluent are suggested. These include discharge of effluent into three different streams--Malibu Creek, Conejo Creek, and Calabasas Creek. The comment is made that "Discharge of effluent to the Malibu Creek has been a continuing source of controversy in the area." But when one looks to the project alternatives chosen for analysis in Section VII, there is no plan which is explicitly based on year-round discharge of Tapia effluent into Malibu Creek. Furthermore, there is no mention of the fact that the Las Virgenes Municipal Water District has been attempting for years to obtain permission from the Regional Water Quality Control Board to discharge effluent from the Tapia Plant into Malibu Creek on a year-round basis and has thus far been rather consistently refused.

On the other hand, the Draft Environmental Impact Statement which accompanies the Areawide Plan and which has been prepared in behalf of the Environmental Protection Agency devotes more attention to this issue, but in a rather vague, inconclusive manner. Page iii of the preface to the Draft E.I.S. indicates that:

> Two other alternatives (6 & 7) also being considered at this time, would discharge effluent year round into Malibu Creek; however, further studies are in progress to determine feasibility.

Further on the Environmental Impact Statement proclaims:

> Year-round discharge into Malibu Creek is an alternative but has not been proposed in the Draft Areawide Facilities Plan. This is due to lack of complete understanding, at this time, of algae proliferation in Malibu Creek and the effects Tapia WRF effluent may have on the condition. Additionally there still remain unresolved questions of viral hazards from the discharge of secondary treatment effluent into Malibu Creek since body-contact recreation may occur.

These rather tentative references to the issue of year-round discharges into Malibu Creek raise more questions than they answer. What are we to make of the inconsistencies between the Draft Areawide Plan and the Draft Environmental Statement? Is there or is there not an Alternative 6 or 7 which is based explicitly on the assumption of year-round discharge? If there is, why are these alternatives barely mentioned in the Draft Facilities Plan? It may well be that additional time is needed by the District, by E.P.A. and their consultants to complete financial, structural and environmental assessment of such discharge. But if that is true, these hearings should be postponed until a complete analysis is ready.

In addition, the Draft E.I.S. (p. 3-5) makes the statement:

> Pending resolution of the issues above, both of these alternatives could be fully analyzed in the *Final* E.I.S. as to their associated environmental impacts, and they would then be compared with the other project alternatives in selecting a "recommended alternative." (emphasis added)

As far as we are concerned this statement is unacceptable. All realistic alternatives being considered by the District and by E.P.A. should be formalized in *draft* documents which are accessible to the public and subject to comment in public hearings before final documents are prepared. Formalizing "new" alternatives for the Areawide Plan and bringing them in the back door of the planning process after preliminary publication and public hearings have been held on other alternatives would simply make a mockery of the entire citizen participation and public hearing process on the Plan and the accompanying E.I.S.

The inconsistent and inconclusive treatment of the proposals for year-round discharge into Malibu Creek by the District in the draft documents is troubling to Monte Nido residents for another reason. Any effluent disposal into Malibu Creek by the District on a year-round basis would be subject to the permitting process of the Regional Water Quality Control Board. But under the 1972 Amendments to the Federal Water Pollution Act the Environmental Protection Agency has ultimate review power over certain stream discharge permits issued by a state agency. Any action taken by the Regional or State Water Board concerning discharges into Malibu Creek or other similar streams must be approved by E.P.A. In other words E.P.A. has the power to prevent year-round discharge into Malibu Creek if it chooses to use it. Whatever confusion exists over the choice of Facilities Plan alternatives based on Malibu Creek discharge could be eliminated if E.P.A. chose to act and make its position clear to other agencies and to the public. Unless the E.P.A. has good reason for its deferential stance toward effluent disposal alternatives, clarification by E.P.A. of its own position would certainly be welcomed by our organization.

III..

We believe the process by which alternatives were selected for analysis in the Draft Facilities Plan was not entirely satisfactory. Nevertheless we have waited so long to see some indications of planning by the District that we feel compelled to support one of the five alternatives outlined in the Draft Facilities Plan. We have decided to lend conditional support to Plan IV, the plan based on land disposal of the Tapia Plant effluent. The reason we conditionally support Plan IV is that it is the alternative considered in the Facilities Plan which has the potential for making best use of the ideas and technology associated with water resue and technology. We support Plan IV only if water reuse and reclamation is truly the basis upon which the plan will be carried out. It is worth noting that the Draft Facilities Plan (p. VII-7) states:

> Plan IV offers the following flexibility and features:
>
> a. Evaluation of discharge to Malibu Creek can be continued in a timely manner and rational discharge requirements may be developed. Study and evaluation of the effect of discharge to Malibu Creek can continue in an effort to expand this means of disposal by illustration of the beneficial effect on the stream system.

If Plan IV is looked upon by the District as merely a stop-gap or temporary measure involving no major commitment of resources until permission is obtained to discharge Tapia effluent down Malibu Creek, then Plan IV is no real plan at all. In such a case we do not support such an alternative.

We do support a full exploration of all the possible opportunities that the District has for expanding its spray irrigation contracts and its waste spray possibilities. The District has too often assumed that the effluent disposal problem will be solved by means other than by land disposal and has not been sufficiently aggressive in planning future negotiations for water reuse. The emergency which, according to the District, required the construction and use of seepage pits near the Tapia Plant gives an all-too-vivid example of where lack of suitable planning can lead.

Perhaps the key aspect of Plan IV which we support is an increasing emphasis on long-range planning and the possibilities Plan IV holds for giving more explicit attention to water resue and reclamation in the District. We encourage the District and E.P.A. to give far more attention to innovative ideas and new technologies which might be applied in the study area. As a start, however, we would encourage a clear-cut commitment on the part of the District to water reclamation. The Draft Areawide Facilities Plan seems to indicate receptivity to certain water reclamation andresue notions on the part of the District. At one point (p. VII-30) the Plan states: "The philosophy of the LVMWD toward long range effluent recycling into the domestic water supply after sufficiently intensive treatment is positive." Elsewhere (p. VI-17) the Plan declares: "Typical conventional uses of reclaimed water are agricultural and landscape/greenbelt irrigation, recreational (golf course and restricted recreational lakes), and industrial cooling water. These uses have been accepted as sound and beneficial by regulatory agencies and by the public generally." We support further investigation into all of the above-mentioned uses.

Unfortunately the District has labeled discharge of Tapia effluent into Malibu Creek as water reuse and reclamation. Apparently the notion is that t is so-called "flow augmentation"of the stream makes possible some transitory beneficial use as the water of the creek heads for the ocean. Inasmuch as the possible benefits of such action for flora and fauna tend to be speculative and possible harm to body-contact recreational uses of the lower stream seems likely, such labeling of essentially polluting activity as water reclamation requires a very severe stretching of the credibility of the term "reuse." That is not what we mean by water reuse and reclamation and neither should the District engage in such semantic games. If the District acts responsibly, it need not worry about the problem of the lack of "public acceptance" of water reclamation proposals.

As a condition to our support of Plan IV, we would like to offer a proposal which could function as a spinoff idea which would fit together nicely with a water reuse and reclamation orientation to Plan IV. The Draft Facilities Plan (p. VI-19) indicates that "recreational lakes should be considered as a beneficial use in a recreationally-oriented plan for use of reclaimed water.... Where feasible, creeks could have check structures to impound onstream or offstream creating small recreational impoundments." Although the notion of creating a major recreational impoundment of reclaimed water to be located within the study area is not specifically addressed in the Plan, it is almost an obvious omission. Unfortunately the Plan seems so concerned with alternatives involving discharge into one stream or another and the Plan fails to consider how such an idea might fit into a water reclamation-oriented Plan IV.

We envision a major man-made impoundment of water or series of impoundments which could serve as a reservoir for treated effluent from the Tapia Plant or satellite plants in the study area. The reservoir(s) could be used for recreation such as boating, water skiing, or fishing which do not involve significant body contact with the water. Consideration would have to be given to nutrient removal. Geological tests would have to be conducted to determine a site or sites with proper seepage qualities. The impoundment might offer auxiliary advantages for fire protection and fire fighting. It would seem advisable for the District to explore with Los Angeles County and State parks and recreation agencies the possibilities for ownership and management of such a reservoir or reservoirs. Problems of accessibility, traffic, and parking would have to be considered although it would seem that a site with primary access from the Ventura Freeway would be the most feasible. It is worth noting that a very similar proposal or series of proposals was suggested by the original Citizens' Advisory Committee on Sanitation, formed in 1974 to advise the District, but these ideas were never acted upon by the District.

Two important future considerations which might affect the feasibility of such a proposal are its future energy requirements and the future cost of water. The energy consequences of a future recreational impoundment using effluent would probably vary considerably depending on the location of the site and its distance to the Tapia Plant.. Further study would be needed to determine how increasing effluent loads would influence the reservoir. Also, if the cost of importing fresh water in the study area continues to rise substantially in the future, various reclamation proposals such as the one offered here might well be even more justifiable from the standpoint of economic feasibility.

IV.

In summary, we suggest that the District and E.P.A. help flesh out our proposal for the use of a recreational reservoir for disposal of effluent and analyze this alternative in the form of Plan IV-C.. We also reiterate our position that if discharge of effluent into Malibu Creek on a year-round basis is being considered as an alternative plan, these fully analyzed alternatives should be presented in draft form at a reconvention of these same public hearings. For these reasons we endorse the recommendation of the Las Virgenes Municipal Water District's Citizens' advisory Committee on

Sanitation that the Draft Facilities Plan and E.I.S. be redrafted. Finally, we wish to make clear that our organization wants to play a significant ongoing role in the planning process for waste treatment management in our area, and we see the consideration of the Facilities Plan as only one aspect of a continuing planning process involving proper citizen participation.

Response To Monte Nido Valley Property Owners Association (#77)

The concerns expressed here for the reuse of effluent from the Tapia Plant will be discussed under various alternatives detailed in the Draft Addendum. The addendum will allow for continued citizen involvement in the planning process, and will allow the District to review citizen's concerns and the suggestions raised in the Draft EIS/EIR and AWFP.

Written Comments

(HE-132) 2 E-2

CENTER

OCT 5 10 40 AM '76

Advisory Council on
Historic Preservation
1522 K Street N.W.
Washington, D.C. 20005

October 1, 1976

Mr. Paul De Falco, Jr.
Regional Administrator
Environmental Protection Agency
Region IX
100 California Street
San Francisco, California 94111

Dear Mr. De Falco:

This is in response to your undated request for comments on the draft environmental statement (DES) for the Las Virgenes-Triunfo-Malibu-Topango Area Wide Facilities Plan, Ventura and Los Angeles Counties, California. Pursuant to its responsibilities under Section 102(2)(C) of the National Environmental Policy Act of 1969, the Advisory Council has determined that this DES demonstrates compliance with Section 106 of the National Historic Preservation Act of 1966 prior to amendment (September 28, 1976, PL 94-422), but that it does not demonstrate compliance with the provisions of Executive Order 11593, "Protection and Enhancement of the Cultural Environment" of May 13, 1971, with regard to this proposal. However, it appears that the Environmental Protection Agency (EPA) recognizes its responsibilities pursuant to the Executive Order 11593 and Section 106 as amended. Accordingly, we look forward to working with the EPA in accordance with the "Procedures for the Protection of Historic and Cultural Properties" (36 C.F.R. Part 800) in the future as appropriate.

Should you have any questions or require any additional assistance, please contact Michael H. Bureman of the Advisory Council staff at P. O. Box 25085, Denver, Colorado 80225, telephone number (FTS) 234-4946.

Sincerely yours,

Louis S. Wall

Louis S. Wall
Assistant Director, Office
of Review and Compliance

The Council is an independent unit of the Executive Branch of the Federal Government charged by the Act of October 15, 1966 to advise the President and Congress in the field of Historic Preservation.

Response To Advisory Council On Historic Preservation, Louis S. Wall (#2)

The Area Wide Facilities Plan is a general plan with specific elements that will be thoroughly discussed and studied as the planning process continues. Two specific elements of the plan are contained in the Final EIS/EIR, and as such, all specific impacts and the background for these impacts are discussed. Pages 4-15 thru 4-21 and 4-39 thru 4-42 provide a discussion of archaeological and paleontological resources and impacts in the localized study area of the Calabasas Reclaimed Water Line and the Sludge Disposal areas.

Additionally, a general description of paleontological resources has been added to Chapter 2, and the literature search conducted for archaeological sites in the area has been included in the Appendix.

(HE-132) 4

STATE OF CALIFORNIA—RESOURCES AGENCY

EDMUND G. BROWN JR., Governor

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
POST OFFICE BOX 2390
SACRAMENTO, CALIFORNIA 95811
(916) 445-8006

RECEIVED
E.P.A. REGION IX
OCT 4 12 09 PM '76

September 30, 1976

Mr. Paul DeFalco, Jr.
Regional Administrator
Environmental Protection Agency
Region IX
100 California Street
San Francisco, CA 94111

Dear Mr. DeFalco:

We appreciate the opportunity to comment on the Draft EIS/EIR for the Las Virgenes-Triunfo-Malibu-Topanga Areawide Facilities Plan.

We note that the information generated for cultural resources is derived primarily from listings and that these listings are only partial. We feel that such lists in this area are inadequate for meaningful assessment or disclosure of the effects of this project as a whole, or of any of the alternatives.

In previous review and telephone correspondence, Mr. Seidel of this staff suggested to EDAW, Inc. that such listings were not sufficiently up to date or comprehensive to act as the sole source of information on cultural resources.

To comply with the National Environmental Policy Act, the National Historic Preservation Act, Executive Order 11593, and 36 CFR Part 800, we suggest:

1. That an overview of the service area be conducted specific enough to allow meaningful disclosure of secondary effects of this undertaking on the cultural resources of this area;
2. That the various alternatives be surveyed prior to the Final EIS/EIR to enable meaningful identification of the resources and impacts of the undertaking on these resources, and;
3. That EPA comply with 36 CFR Part 800 at the earliest stage of planning when this can be accomplished.

If you have any questions, please do not hesitate to contact Mr. William Seidel of this staff at (916) 445-8006.

Sincerely,

Knox Mellon

Dr. Knox Mellon
Historic Preservation Coordinator

G-4/361

cc: Mr. James Allen, Chief
Environmental Evaluation Unit
Division of Water Quality
State Water Resources Control Board
P. O. Box 100
Sacramento, California 95801

Response To Office Of Historic Preservation, Dr. Knox Mellon (#4)

See Appendix for the literature search conducted for archaeological and paleontological sites in the study area.

(HE-132) 5

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OCT 1 1976
REGION IX

LOS ANGELES COUNTY WEST MOSQUITO ABATEMENT DISTRICT
12107 W. JEFFERSON BOULEVARD, CULVER CITY, CALIFORNIA 902[illegible] Phone EX 1-2248

TRUSTEES

JOHN L. SMITH, PRESIDENT
HILLIARD L. LAWSON, VICE PRESIDENT
FRANK SMALL, SECRETARY
WILLIAM M. EVANS
A. RONALD PERKINS
~~[illegible]~~
~~EDWARD E. TUFTE~~
Rita Ashen
F. Glenn Engebretsen

October 14, 1976

Environmental Protection Agency
Attention: Hearings Office
Region 1X
100 California Street
San Francisco, CA 94111

Dear Sir:

Subject: Comments-Draft EIS/EIR Las Virgenes-Triunfo Malibu-Topanga Area Wide Facilities Plan

On October 14, 1975, the enclosed letter was sent to the Las Virgenes Municipal Water District posing questions of environmental impact relative to any kind of a stream discharge of effluent from the Tapia Treatment Plant.

In reviewing the subject draft, alternatives for stream discharge are mentioned:

Alternative 1 Disposal to Calabasas Creek
" 2 Disposal to Conejo Creek
" 6 ... would call for year-round discharge to Malibu Creek...
" 7 ...then discharge to the (Malibu) Creek...

The Draft does not respond to the questions of environmental impact as posed in the enclosed letter of October 14, 1975. Therefore, they are filed with you for reponse.

Please acknowledge receiving this letter.

Very truly yours,

Frank Small

Frank Small,
Secretary

LOS ANGELES COUNTY WEST MOSQUITO ABATEMENT DISTRICT
12107 W. JEFFERSON BOULEVARD, CULVER CITY, CALIFORNIA 90230 • Phone EX 1-2248

TRUSTEES

JOHN CARL BROGDON, PRESIDENT
JOHN L. SMITH, VICE PRESIDENT
FRANK SMALL, SECRETARY
WILLIAM M. EVANS
HILLIARD L. LAWSON
~~KASSON B. LUNT~~
GENRIK SIRVIS
EDWARD E. TUFTE

October 14, 1975

Mr. H.W. Stokes,
General Manager
Las Virgenes Municipal Water District
4232 Las Virgenes Road
Calabasas, California 91302

Dear Mr. Stokes:

It is my understanding that you have engaged a consultant to prepare an Area Wide Facilities Plan and to prepare an Environmental Impact Report. Perhaps the following and the enclosures will be helpful.

The Fact Sheet explains the functions of the District. As noted on the map, the area included in the Area Wide Facilities Plan is within the boundaries of the district.

The following species of mosquitoes have been found in the area:

Anopheles freeborni
Anopheles franciscanus
Culex apicalis
Culex boharti
Culex pipens
Culex peus
Culex tarsalis
Culex thriambus
Culiseta incidens

In order for mosquitoes and other aquatic insects (especially midges) to breed, they must have water and the proper environment. In general, as the availability of water and vegetation increases, breeding will increase (vegetation herein includes algae where appropriate).

If the amount of water flowing in the creeks and drainage ditches increase and/or the nutrients in the water increase, there may be an increase in the growth of aquatic vegetation. As an example, in Malibu Creek, there are cat-tails, duck weed etc. As the density of these weeds increases, the movement of the water decreases. This provides ideal breed sources. Also, there will be an increase of vegetation along the banks of the creeks and ditches.

The creeks that terminate at the ocean have a tendency to have a sand bar created at the mouth.. This causes the water in the creek to impound, the level to raise and spread out. This may cause mosquito breeding, an example is Malibu Lagoon.

The following questions can be asked;

1. Will there be an increase in the amount of water that may provide potential mosquito and/or midge breeding?

    a. Where will this occur?

    b. Who will produce or discharge this water?

    c. What is the legal resonsibility of the producer or discharger for controlling the resulting breeding?

    d. Will there be an increase of mosquito and/or midge breeding? Where?

    e. What is the method of control?

2. Will there be an increase in the growth of non-aquatic and aquatic vegetation in the creeks and/or drainage ditches and/or along their banks?

    a. Where will this occur?

    b. Who will produce or discharge this water?

    c. Will it be necessary to control the vegetation so that:the flow of water will not be impeded and there will not be any mosquito or midge breeding?

    d. What is the legal responsibility of the producer or discharger to control the vegetation so there will not be any breeding?

    e. What is the responsibility of the discharger or producer to channel the water?

153<

f. Who will be responsible to control the vegetation, what method is recommended, what is the estimated annual cost and what permits if any are required?

g. Will there be an increase of mosquito and/or midge breeding, who is responsible to control it, what method is recommended, what is the estimated annual costs and what permits if any are requird?

Very truly yours,

Original signed

Frank Small,
Secretary

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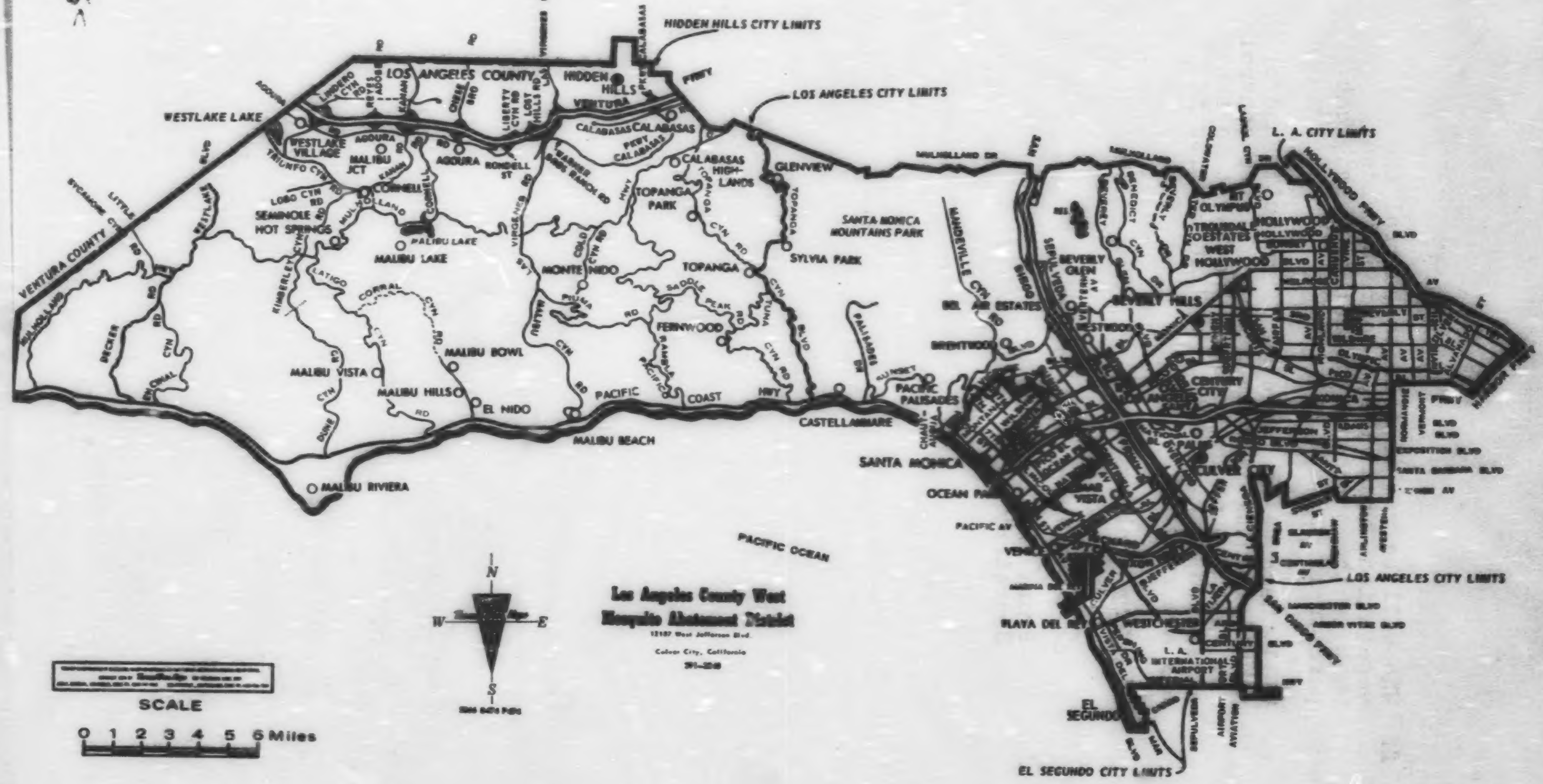
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CORNELL
SEMINOLE HOT SPRINGS
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MONTE NIDO
TOPANGA PARK
TOPANGA
GLENVIEW
SYLVIA PARK
SANTA MONICA MOUNTAINS PARK
FERNWOOD
MALIBU BOWL
MALIBU VISTA
MALIBU HILLS
EL NIDO
MALIBU BEACH
MALIBU RIVIERA
CASTELLAMMARE
PACIFIC PALISADES
PACIFIC COAST HWY
MULHOLLAND DR
MANDEVILLE CYN RD
BEL AIR ESTATES
BRENTWOOD
SEPULVEDA
BEVERLY GLEN
BEVERLY HILLS
WEST HOLLYWOOD
HOLLYWOOD
HOLLYWOOD FRWY
CENTURY CITY
CULVER CITY
SANTA MONICA
OCEAN PARK
VENICE
PLAYA DEL REY
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LOS ANGELES COUNTY WEST MOSQUITO ABATEMENT DISTRICT
12107 W. JEFFERSON BOULEVARD, CULVER CITY, CALIFORNIA 90230 • Phone EX 1-2248

TRUSTEES

JOHN L. SMITH, PRESIDENT
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FRANK SMALL, SECRETARY
WILLIAM M. EVANS
A. RONALD PERKINS
~~GENRIK SIRVIS~~
~~EDWARD E. TUFTS~~
Rita Ashen
F. Glenn Engebretsen

October 5, 1976

Mr. H.W. Stokes,
General Manager
Las Virgenes Municipal Water District
4232 Las Virgenes Road
Calabasas, CA 91302

Dear Mr. Stokes:

I want to thank you for the copy of the Draft EIS/EIR Las Virgenes-Triunfo Malibu-Topanga Area Wide Facilities Plan. After a quick review of the Plan, I find that it does not consider the matters raised in my letter of October 14, 1975, to you. Perhaps they are considered in the Draft Areawide Facilities Plan Report. Therefore, please send the district a copy of the Draft Areawide Facilities Plan Report by Boyle Engineering Corp.

Very truly yours,
Frank Small
Frank Small,
Secretary

Response To Los Angeles County West Mosquito Abatement District (#5 & 6)

The issues and questions raised all pertain to situations which could occur as a result of effluent disposal. These concerns will be addressed in the Draft Addendum.

(HE-132) 8

STATE OF CALIFORNIA—STATE LANDS COMMISSION
EDMUND G. BROWN JR., Governor

STATE LANDS DIVISION
1807 13TH STREET
SACRAMENTO, CALIFORNIA 95814
(916) 445-7738

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OCT 27 1976
REGION IX

October 26, 1976

File Ref.: SD 76-10-7

Environmental Protection Agency
Region IX
100 California Street
San Francisco, CA 94111

Attention: Hearings Office

Gentlemen:

Draft EIS/EIR Las Virgenes - Triunfo
Malibu - Topanga, Area-Wide Facilities Plan

Thank you for the opportunity to review the above-referenced report. Alternate three which utilizes an ocean outfall will probably encroach onto State lands.

If alternate three should be selected, please contact this office so that we may assist you in obtaining a permit from the State Lands Commission.

If you have any questions, please contact me at the above-referenced telephone number.

Sincerely,

Scott Atkins
SCOTT ATKINS
Land Agent

SA:js

Response To State Land Commission, State Lands Divisions (#8)

The ocean outfall alternative will be discussed in the Draft Addendum. Should this Alternative be used to solve the effluent disposal problem, all permits required would be obtained from the appropriate agencies.

(HE-132) 10

COUNTY OF LOS ANGELES

FIRE DEPARTMENT

POST OFFICE BOX 3009, TERMINAL ANNEX
LOS ANGELES, CALIFORNIA 90051

RICHARD H. HOUTS
FORESTER & FIRE WARDEN

CHIEF ENGINEER
FIRE PROTECTION DISTRICTS

STANLEY E. BARLOW
CHIEF DEPUTY

267-2467

"PRIDE IN OUR FREEDOM 1776-1976"

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NOV 12 1976
REGION IX

November 1, 1976

United States Environmental Protection Agency
Region IX
100 California Street
San Francisco, CA 94111

Gentlemen:

SUBJECT: DRAFT EIS/EIR LAS VIRGENES-TRIUNFO MALIBU-TOPANGA AREA WIDE FACILITIES PLAN

This subject has been reviewed by our Department and the attached reports respond to those areas which affect Fire Department responsibility and operation.

Sincerely,

Richard H. Houts
RICHARD H. HOUTS
Chief Engineer
LOS ANGELES COUNTY FIRE DEPARTMENT

RHH:lp

Attachment

(HE-132) 10

November 1, 1976

TO: CHIEF ENGINEER RICHARD H. HOUTS

FROM: BATTALION CHIEF JOHN W. ENGLUND

SUBJECT: DRAFT EIS/EIR LAS VIRGENES-TRIUNFO MALIBU-TOPANGA AREA WIDE FACILITIES PLAN

Our review of the subject Draft EIR indicates that those areas dealing with fire protection and fire hazards are adequately covered, with the exception of the statements made on pages 2-161 and 2-162 under section entitled Firefighting System.

Paragraph No. 1 (first sentence) should read as follows:

Los Angeles County Fire Department (Forester and Fire Warden and Consoldiated Fire Protection District) maintains eight fire stations in the study area, two forestry camps, cisterns for firefighting, water, and a system of firebreaks and motorways. Water systems for fire protection are provided by Las Virgenes Municipal Water District and Los Angeles County Waterworks District #29.

Paragraph No. 2 should read as follows:

Existing facilities for fire protection do not comply with present day standards. Water mains, fire hydrants, fire flows, and access roads do not meet fire department standards. Minor land divisions are currently being allowed which do not meet the requirements of the water ordinance or fire department standards for access. A new fire station (Station 99) was recently opened to service this area and has since been closed due to lack of funds. There is a need for improvement districts, in the subject area, to provide water mains, fire hydrants, fire flows, and access roads which will meet present day fire department standards. Planned expansion will include additional fire stations in the area as funding becomes available and upgrading all firebreaks to fuelbreaks.

JWE:lp

Attachment

cc: Forestry

(HE-132) 10

PROFESSIONAL FORESTER
DAVID K. BOYD
No. 1357
STATE OF CALIFORNIA

OCTOBER 22, 1976

TO: CHIEF ENGINEER RICHARD H. HOUTS

FROM: DEPUTY FORESTER DAVID K. BOYD
FORESTRY DIVISION

SUBJECT: DRAFT EIS/EIR LAS VIRGENES-TRIUNFO
MALIBU-TOPANGA AREA WIDE FACILITIES
PLAN

This document presents a great deal of information and there is little need from a forestry standpoint to make additional comments on areas that have been thoroughly covered. One possible point of emphasis can be made regarding the disposal of treated effluent on natural vegetation types, especially those found along creek beds. The effects that this will have on these plant communities should be thoroughly studied and understood before this alternative is decided upon. Creek bed areas take on special importance in these mountains because of their general scarcity and any plan which will alter them should be carefully studied.

DKB:ser

cc: Dalton
Boyd
Brown-Arndt IN TURN
Forestry

Response To County of Los Angeles Fire Department (#10)

The comments of the Los Angeles County Fire Department have been noted and will be included in the Final EIS.

(HE-132) 11

SOUTHERN CALIFORNIA gas COMPANY

810 SOUTH FLOWER STREET • LOS ANGELES, CALIFORNIA

Mailing Address BOX 3249 TERMINAL ANNEX, LOS ANGELES, CALIFORNIA 90051

NOV 15 10 22 AM '76
CENTER

November 11, 1976

Environmental Protection Agency
Region IX
100 California Street
San Francisco, California 94111

Attention: Hearing Officer (HE-132)

Dear Sir:

In response to your request for comments on the Draft Environmental Impact Statement/Report for the Las Virgenes/Triunfo/Malibu/Topanga Areawide Facilities Plan, the Southern California Gas Company submits the following comments for your consideration.

The only reference to natural gas we find within the report is on pages 2-224 & 225 and Figure 72. The information contain therein is accurate with one exception. The second sentence of the first paragraph on page 2-224 reads:

> "However, those customers anticipating use of natural gas in excess of 200,000 cf/day must get prior approval of California State Public Utilities Commission."

In this sentence, the figure 200,000 cf/day should be changed to 50,000 cf/day in accordance with the latest directives of the Public Utilities Commission. Obviously this is a minor correction and should not affect any other portion of the analysis.

Thank you for the opportunity to review this report.

Sincerely,

Robert G. Vogel
Robert G. Vogel
Environmental Affairs
Engineer

RGV/al

Response To Southern California Gas Company (#11)

The comment of the Southern California Gas Company has been noted and will be included in the Final EIS.

(HE-132) i 2

COMM CENTER

Nov 10 12 41 PM '76

November 9, 1976

Mr. Paul De Falco, Jr.
Regional Administrator
U.S. Environmental Protection Agency
100 California Street
San Francisco, California 94111

Dear Mr. De Falco,

The Malibu La Cumbre Homeowners Association has received the draft EIS/EIR Area Wide Facilities (Sewage) Plan prepared by your agency. Our association takes pleasure in accepting your invitation to respond.

Seldom have we seen a study as detailed as this one. By contrast, we will limit our comments to the key issues, in the hope that this contributes to the final outcome.

Focusing primarily on the Malibu - Santa Monica Mountains, your study quite correctly characterizes this region as one of soil instability, high fire hazard, and limited congested access that cannot economically be expanded (e.g., Pacific Coast Highway). There is no industrial base or plans for one in the future and, because of its location and terrain, new services are both costly to build and maintain.

The area is unique, however, for one important reason. It serves as the last major open space offering air shed, hiking, sightseeing and unspoiled beaches in close proximity to the 8 to 10 million inhabitants of the greater Los Angeles area.

Your report substantiates earlier studies, and the conclusions are the same. High cost, growth-inducing projects such as highway expansion and sewers should not be directed into this area without good reason.

Any planer can recite the problems associated with sprawl — energy waste, smog, jammed highways, etc. Since the population of Los Angeles County is not growing, a sewage system in Malibu has serious repercussions. It's a significant public expenditure, it contributes to greater sprawl, and it quickens the decay of the central city.

Mr. Paul De Falco, Jr.
U.S. Environmental Protection Agency
Page 2

If you feel that we in Malibu are protective of our area, you're right — but we are also talking about the fundamentals of good planning. Infact, I'll take it one step further.

Without a reasonable but significant increase in density, sewers are not needed. However, a planned higher density for the Malibu - Santa Monica Mountains requires both sewers and highway expansion. Therefore, until such time as a planning decision is made to significantly increase the density in the area, and [illegible] need not be considered.

Thank you again for giving us this opportunity to respond.

Sincerely,

William Finnegan
William A. Finnegan
President, Malibu La Cumbre Homeowners Assoc.
2683 Rambla Pacifico, Malibu, Ca. 90265

c.c. - Governor Jerry Brown
- EDAW, Inc.
- Malibu Township Council

Response To William A. Finnegan
Malibu La Cumbre Homeowners Association (#12)

A sewage system for the Malibu area is not being considered in the Final EIS. This issue will be addressed in the Draft Addendum.

(HE-132) 31

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Nov 19 2 56 PM '76

EUGENE D. MICHAEL
CONSULTING GEOLOGIST
6225 BONSALL DRIVE • MALIBU • 90265
213 • 457-9319 • 456-2033

16 November 1976

Environmental Protection Agency
Attention: Hearings Office
Region IX
100 California Street
San Francisco, California 94111

Subject: Comments - Draft EIS/EIR, Las Virgenes-Triunfo, Malibu-Topanga Area Wide Facilities Plan

Gentlemen:

This letter is submitted as comments for the record on the undated draft EIS/EIR for the Las Virgenes-Triunfo, Malibu-Topanga Area Wide Facilities Plan prepared by your agency with the technical assistance of EDAW, Inc. My interest in this subject began in 1971 as the result of what I considered to be misrepresentations in an EIR prepared by the Department of the Los Angeles County Engineer regarding the need for a public sewer system in Malibu. In the ensuing five years, due to the effects of legislation such as the National Environmental Protection Act and the California Environmental Quality Act and as the result of activities on the part of the Las Virgenes Municipal Water District, the situation has become considerably more complex. This complexity, reflected in your draft EIS/EIR, is a primary factor limiting my opportunity for comment which otherwise would be considerably more extensive and detailed.

My comments in the past have related to the need for a sewer system in terms of the geologic characteristics of the area. The comments presented here are similarly directed, and I consider them generally applicable to any indications of need for a system either explicitly or implicitly contained in the draft EIS/EIR. For convenience, I would like to discuss these matters first with reference to the Malibu area and second the Calabasas area.

NEED FOR A SEWER SYSTEM IN MALIBU

During the most recent period when proponents of a sewer system for Malibu were attempting to get a bond issue passed, certain agencies including the Department of the Los Angeles County

Engineer, the Los Angeles County Health Department, and the State Water Quality Control Board attempted to prove that the community needed a sewer system by asserting that private on-site waste water disposal systems, i.e., septic tank systems, (1) pollute ground water supplies, (2) are responsible for wide-spread landsliding, (3) create a potential health hazard and (4) are undesirable because Malibu is an area generally unsuitable for such systems.

Polluted Ground Water and Landslides

I note with some satisfaction first, that your present report (pp. 2-67 to 2-73) puts the relationship of pollution to ground water in its proper perspective by indicating that septic tank systems in Malibu are not a cause of ground water pollution. Second, you appear to recognize (p. 2-134) that septic tank systems generally do not cause the landslides in Malibu.

"Potential Health Hazard"

Your treatment of the "potential health hazard" that septic tank systems present is less satisfactory. Although the draft EIS/EIR states in at least two places (pp. ii; 2-67) that no evidence of a health hazard has ever been recorded as the result of a septic tank system in Malibu, the report still alludes to this matter as though it were a problem significant enough to be considered in an area wide facilities plan.

The State Water Quality Control Board and the County Health Department originally raised this "potential health hazard" solely as an argument in favor of the sewer bond issue in Malibu. Even though it was challenged, proponents of the sewer system continued to use it, and it is virtually certain that some voters were swayed by this claim.

The insistence of various agency officials on continuing to allude to the "potential health hazard" of septic tank systems in Malibu is difficult to understand considering the fact that coliform counts ranging into the hundreds of thousands per hundred milliliters are permitted by these agencies in the heavily populated area around Santa Monica and the south bay (see e.g., p. 2-120) while at the same time coliform counts both in seawater and in wells adjacent to septic tank systems in Malibu meet U.S. Department of Health drinking water standards. The objectivity of the draft

EIS/EIR is called into question in mentioning such a matter in view of the lack of significance ascribed by these public officials to similar "potential" hazards in other areas apparently far more serious.

Suitability of Malibu for Septic Tank Systems

The most serious objection I have to the draft EIS/EIR is the manner in which it describes the geology of Malibu and the Santa Monica Mountains in relation to the suitability of various formations as sites for the acceptance of septic tank effluent. Briefly, the draft EIS/EIR presents in Figure 48 a map which purports to indicate drain field suitability in terms of arbitrary degrees of limitation including "severe," "moderate," and "slight." In addition, the report discusses the relationship of effluent disposal to geologic conditions (p. 2-130 to 2-131) and soils (pp. 2-140 to 2-143). This figure and these sections of the report present data which are either erroneous or sufficiently misleading that any decisions which might be made based upon them would probably be invalidated should relief be sought in the courts.

Figure 48 - Drain Field Suitability

One difficulty with Figure 48 is that it does not define in any quantitative way the "degrees of limitation" it purports to indicate. Qualifications in the text (p. 2-142) are unsatisfactory since the figure clearly suggests that most of the area of the Santa Monica Mountains is in some serious way unsuitable for septic tank systems. The fact is that most areas in the Santa Monica Mountains are well suited to septic tank systems.

I estimate that of the private land in the Santa Monica Mountains not unsuitable for development because of excessively steep slopes, landslides, or flooding hazards, probably 90 to 95 percent is suitable for septic tank systems for single-family residences. This estimate is based upon 18 years of professional experience preparing hundreds of reports in the Santa Monica Mountains, and it reflects a far more realistic view of the situation than does the draft EIS/EIR which appears to be merely a reiteration of general principles. Although it is true that many of the formations exposed in the Santa Monica Mountains are rocks of relatively low permeability in terms of ground water production, it also is true that they are sufficiently permeable to transmit and dispose of the small volumes of waste water produced by the average residence.

There are numerous densely populated communities in areas of the Santa Monica Mountains shown in Figure 48 as having a "severe" degree of limitation in terms of drain field suitability. These include Old Topanga, the Fernwood and Post Office Tract areas of Topanga Canyon, many sites along Schueren, Tuna Canyon, Piuma, Rambla Pacifico and Stunt roads, areas along the southerly mountain slopes between Malibu Creek and Topanga Canyon, along both sides of Pacific Coast Highway and in the Point Dume and Malibu Park areas, in Latigo Canyon, and indeed many other places where septic tank systems function perfectly.

In addition to ignoring the densely populated areas, the very existence of which belies the "severe" limitation criterion, no distinctions are made with regard to certain geologic formations that clearly have differing properties related to waste water disposal. For example, in areas generally south of Pacific Coast Highway from the western edge of the study area to Trancas Canyon, and from Corral Canyon to Malibu Creek, there are Quaternary terrace deposits which are excellent for the disposal of septic tank effluent. Nevertheless, these areas are given the "severe" classification. Conversely, the area of the Malibu Civic Center which, to use the map's terminology has a "slight" classification, actually should be "moderate" or "severe" degree because of a high ground-water table. In short, Figure 48 is almost totally erroneous and cannot be justified with even the most gross sort of equivocation as to definitions of degrees of limitation.

Failure to Consider the Seepage Pit

A serious defect of the draft EIS/EIR is its failure to consider the seepage pit as an alternative to the drain field method of disposal of septic tank effluent. The seepage pit is especially useful in terrain where it is desirable to inject effluent deeper in the subsurface. It is especially suitable where there is a limited amount of area available. In the Santa Monica Mountains, the seepage pit is more common than the drain field, and the failure to mention it calls into question the validity of the entire section of the draft EIS/EIR dealing with disposal of effluent from septic tank systems.

Miscellaneous Erroneous Statements

The draft EIS/EIR suggests that: (1) generally, the geologic environment offers "limited opportunities for effluent disposal systems" (page 2-130); (2) fractured rock and very coarse-grained gravels are unsuitable to remove pathogenic organisms from effluent (page 2-130 and 2-131); (3) slopes having a gradient steeper than 20 percent are unsuitable for disposal of septic tank effluent (2-131); (4) septic tank systems in the Santa Monica Mountains have a high failure rate (page 2-142). None of these statements is true. If the authors of the draft EIS/EIR have been told otherwise they have been misinformed. It would make this letter unduly lengthy to explain in detail the errors involved in this particular section. It may suffice for present purposes simply to emphasize (1) that within the area of "severe" limitation cited in the draft EIS/EIR practically all sites have been approved for residential purposes by representatives of the County Department of Health and by County geologists, and (2) practically all sites which conform to modern Health, Plumbing and Building Code requirements function properly and do not require pumping.

Generally, the draft EIS/EIR continues the unjustified practice of referring in general terms to the defects of septic tank systems without reference to quantitative data for the area. Any statements regarding the necessity for pumping or the failure of systems in the Santa Monica Mountains should be documented. Such pumping of septic tanks as is occasionally necessary involves a very small percentage of the existing systems, certainly less than one percent, and in very limited geographic areas.

CALABASAS AREA

Considering the serious problem posed by the necessity to dispose of sewage effluent, it appears that certain solutions need to be considered which have not been given any significant attention in the draft EIS/EIR. Some of these solutions involve the expenditure of funds or would otherwise be unpalatable to proponents of an area wide system. Nevertheless, consistent with the legal requirements of environmental impact statements, all reasonable alternatives should be considered. Briefly, the following alternatives seem to me to have not been properly considered in the draft EIS/EIR.

(1) There are many fallow areas in the vicinity of Las Virgenes Canyon that have not been considered for spray disposal. It may be feasible to spray in these areas if not for irrigation then merely as a means to dispose of water through evaporation and transpiration. Consideration should be given to disposal by this means. If condemnation for this purpose is necessary, that also should be considered.

(2) The draft EIS/EIR dismisses the possibility of injection wells (page 3-6) because of "generally poor existing geologic conditions which would not readily permit the acceptance of water." Such "poor" conditions have not been demonstrated. Indeed, wells in the Santa Monica Mountains in rocks similar to those exposed in the vicinity of the Tapia Plant produce 20 gallons per minute or more. If such sections of rock can produce ground water at these rates by gravity flow, then it is reasonable to assume that under injection pressures they could receive as much if not more. The report merely assumes that there are "many known subsurface impervious geology strata within the study area." The only way to determine the permeability of bedrock in the area is to drill test wells. These facts were brought to the attention of the State Water Quality Control Board in public hearings months ago.

(3) Many sites in the Calabasas area now served by the sewage system which feeds the Tapia Plant are suitable for private septic tank systems. Although it probably is heresy even to suggest that a private sewage disposal system be installed on a site adjacent to one served by a sewer line, nevertheless unusual problems may call for unusual solutions. If the only objection to such systems is the loss of revenue or the assessment of sites not served by such systems, perhaps that is the price the Calabasas area should pay as an alternative to polluting Malibu Creek and Santa Monica Bay.

(4) The relative merits of tertiary treatment compared to the present system should be analyzed and include savings through government grants which under present legislation may fund up to 87.5 percent of costs.

Sincerely,

EUGENE D. MICHAEL

EDM/vlp

Response to Mr. Eugene D. Michael (#31)

Suitability of Malibu for Septic Tank Systems

Figure 34 - Drain Field Suitability shows general soil limitations based on criteria developed by the Soil Conservation Service (Soils of the Malibu Area, 1967, pages 49, 50 and a-18). As stated on page 2-142 of the Draft EIS/EIR: "Areas shown as having severe limitations are not always unsuitable, however. Individual sites may be suitable if all conditions are favorable for a particular system." Mr. Michael corroborates this fact in his statement that, based on his professional experience "preparing hundreds of reports in the Santa Monica Mountains", there are many areas suitable for septic tank systems for single-family residences.

Densely populated communities located in areas shown as having a "severe" degree of limitation do not belie the severe limitation criterion as Mr. Michael suggests. They merely indicate that septic tanks, pits, and drain fields do not control the locations of population centers. Documented system failures (as described in page 2-231 of the Draft EIS/EIR) support the classification of limitation for most of the mountainous and coastal areas.

Quaternary terrace deposits along the coast from the western edge of the study area to Trancas Canyon, and from Corral Canyon to Malibu Creek have been classified as having severe limitations mainly because of development density and because they contain varying amounts of silt and clay. The silt and clay tend to reduce permeability and therefore infiltration and subsurface flow potential.

In addition, these terrace deposits are generally underlain by relatively impervious rocks. Any effluent migrating downward through the terrace deposits will flow downslope on top of the terrace-rock contact and result in downstream surfacing of the fluid thus causing a nuisance or pollution (A. L. Franks, 1972, p. 201). Closely spaced systems in the coastal terraces, especially along the densely populated areas, are very susceptible to failure due to overtaxing of the systems, and have to be pumped out (H. Giraud, personal communication) more often than systems located in other areas. Consequently, these deposits have limitations but can be excellent for disposal of septic tank effluent in certain areas (as stated on page 2-130 of the EIS/EIR). These areas have to be found by a thorough investigation and their adequacy for effluent disposal proven by appropriate investigations and tests. The possible interference between adjacent systems has to be evaluated also.

The area of the Malibu Civic Center has been classified as having slight limitations following Soil Conservation criteria (Soil Conservation Service, 1967, p. 50).

Failure To Consider the Seepage Pit

The omission of a discussion on the merits of the seepage pit as an alternative to the drain field to dispose of septic tank effluent does not invalidate the conclusions reached in the Draft EIS/EIR. Seepage pits are common in the less densely populated, hilly or mountainous parts of the study area. Therefore, they exist in areas where groundwater and soil conditions are not a problem, where no interference between adjacent or closely spaced systems occurs, and where systems can be expanded (approval for seepage pits is conditional, among other requirements upon providing 100 percent expansion capability to the system; Hans Giraud, L. A. County Engineer's office, Malibu, personal communication). Seepage pits are not an alternative to drain fields in the flatter areas of coastal Malibu nor in other densely populated portions of the study area because the required topography, rock and groundwater conditions are not favorable.

The successful operation of seepage pits depends upon the maintenance of aerobic conditions for appropriate disposal of the effluent. Aerobic conditions can change to anaerobic conditions in a few years due to plugging of rock fractures in the pit, either by flow of suspended solids into the fractures, or by anaerobic growth in the fractures. One method to extend the life of the system is to drill one or two additional pits to be used on a rotational basis. In this manner, if one pit is rendered unusable due to plugging, another can be used while the plugged pit is rehabilitated by drying out under aerobic conditions (A. L. Franks, H. Giraud, personal communications).

Miscellaneous Erroneous Statements

According to Mr. Michael there are four erroneous statements, as follows:

1) Generally, the geologic environment offers "limited opportunities for effluent disposal systems" (page 2-130)

This statement is true since the area in general includes geologic units with clayey, "fine grained, relatively tight rocks and fine grained soils developed on most units throughout the area" (p. 2-130). Taking the first statement out of context is erroneous; the Draft EIS/EIR is quite explicit in stating, also on page 2-130, that "Individual septic tank systems can be successfully implemented and operated in parts of the study area."

2) Fractured rock and very coarse-grained gravels are unsuitable to remove pathogenic organisms from effluent (page 2-130 and 2-131).

The statement is misquoted. On pages 2-130 and 131 the statement reads: "Unfavorable geologic conditons...include fissured rock formations and very coarse grained gravels, since they do not filter the effluent to remove pathogenic organisms" (Emphasis added). This general statement is true since "fissured rock and open gravel act as pipes which allow passage of pathogenic organisms and viruses over much greater distances" (A. L. Franks, 1972, p. 198). Failure of systems built in fractured rock or open gravel has been postulated as being caused "by plugging either by flow of suspended solids into the fractures, or by anaerobic growth in the fractures. Because the rock is impervious (less than 2 percent voids), there is little chance for air circulation through the system and this may be the major factor causing plugging and loss of permeability" (A. L. Franks, 1972, p. 200). "Tests have shown that there is biological pollution in well-sorted gravels after the fluid has traveled as far as 232 feet. However, if the gravel is not saturated and conditions are aerobic, acceptable treatment can be accomplished after about 40 feet of vertical travel... Open fractures or solution channels in rock do not provide filtration or treatment of effluent" (A. L. Franks, 1972, p. 201).

Again, it must be emphasized that there are generally unfavorable geologic conditions for effluent disposal in the Santa Monica Mountains but that individual systems can be successfully implemented if investigations, testing, design, construction, and operation of the systems are accomplished according to approved standards.

3) Slopes having a gradient steeper than 20 percent are unsuitable for disposal of septic tank effluent (2-131).

This is another statement misinterpreted by Mr. Michael. Page 2-131 reads: "Excessive slopes (Generally regarded as those exceeding 20 percent grade) should be avoided where possible to prevent downhill surfacing of the effluent (A. L. Franks)."

4) Septic tank systems in the Santa Monica Mountains have a high failure rate (page 2-142)

Nowhere on page 2-142 has it been suggested that septic tank systems fail in the Santa Monica Mountains. However, on page 2-231 it has been documented that from an estimated 4,800 private subsurface sewage disposal installations within the area (as of 1970) approximately 1,750 septic tanks are pumped each year. This represents 36 percent of the existing systems, certainly a much higher percentage than the "less than one percent" undocumented estimate of Mr. Michael.

(HE-132) 33

NORMAN MURDOCH
Planning Director
EDGAR T. IRVINE
Acting Chief Deputy
ROBERT W. CHAVE
Deputy Director
JOSEPH K. KENNEDY
Deputy Director
WAYNE L. STEWART
Deputy Director

COUNTY OF LOS ANGELES
DEPARTMENT OF REGIONAL PLANNING

320 West Temple Street
Los Angeles, California 90012
Telephone: 974-6401

COMMISSIONERS
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LUCILLA BARTHEL
Secretary to the Commission

November 17, 1976

United States Environmental
Protection Agency
Region IX
100 California Street
San Francisco, CA 94111

Gentlemen:

SUBJECT: DRAFT EIS/EIR FOR LAS VIRGENES/TRIUNFO/MALIBU/TOPANGA AREAWIDE FACILITIES PLAN

In response to your recent request, the staff of the Los Angeles County Department of Regional Planning has reviewed the Draft EIS/EIR for the Las Virgenes/Triunfo/Malibu/Topanga Areawide Facilities Plan.

While the Draft EIS/EIR identifies the critical impact categories, we are concerned that the report, and plan itself, do not adequately consider present and future land use within the Malibu/Santa Monica Mountains region. This department is preparing a general plan of the unincorporated county portions of the Malibu/Santa Monica Mountains area. A preliminary plan is scheduled for completion in mid-1977. The staff feels that the facilities plan should be closely coordinated with the county's planning effort to assure that sewer facilities effectively serve existing and future development.

I would be happy to discuss this matter with your staff at any time.

Very truly yours,

DEPARTMENT OF REGIONAL PLANNING

Norman Murdoch

Norman Murdoch, Planning Director

NM:JE:mlg

cc: G. Eisner
P. Flowers
R. Van Wert

Response To County of Los Angeles, Department of Regional Planning, Norman Murdoch (#33)

Land use policies and problems/responsibilities associated with growth are the responsibilities of the governing bodies within any given area. In the study area these responsibilities are those of the Los Angeles County Planning Commission and ultimately the Los Angeles County Board of Supervisors. Coordination with both these governing bodies is essential to adequately provide services to the public in the study area. Coordination with the L. A. County Planning Department staff has occurred during the preparation of the Final EIS. Publication of the L. A. County General Plan has been delayed until December 1977.

It should be noted that the expansion of the Tapia plant is not a growth inducing project; rather, it is a growth accommodating project which does not enable the servicing of the entire projected population for the LVMWD/TCSD area.

The Tapia Treatment Plant was originally designed to be constructed in phases with a maximum capacity of 8mgd. The first phase only allowed a 4 mgd operating capacity. This was accomplished with funds from a Clean Water Grant. At this time the project now being considered is to bring the plant up to it's full operating capacity.

(HE-132)34

STATE OF CALIFORNIA—RESOURCES AGENCY
EDMUND G. BROWN JR., Governor

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD—
LOS ANGELES REGION**
107 SOUTH BROADWAY, SUITE 4027
LOS ANGELES, CALIFORNIA 90012
(213) 620-4460.

NOV 22 1976

Environmental Protection Agency
Region IX
100 California Street
San Francisco, California 94111

ATTENTION: Hearings Office

RE: Draft EIS/EIR for Las Virgenes-Triunfo-Malibu-Topanga
Areawide Facilities Plan

Gentlemen:

We have reviewed the subject EIS/EIR received on September 28, 1976, and have the following comments.

1. Page 3-11, paragraph 2 - it is indicated that if the Malibu area were to join with the Las Virgenes/Triunfo system and pumps sewage to the Tapia Plant, the Topanga line would probably join with the Los Angeles City system. For the sake of completeness a brief discussion should be included to indicate why the Topanga line could not be joined to the Malibu system and eventually to the LVMWD/Triunfo system.

2. The EIS/EIR should discuss the impacts on the Tapia Plant and disposal of treated wastes received from the Malibu area. In this discussion the anticipated volume of wastes from the Malibu area, which is significant, should be mentioned.

3. A discussion should be made of the possible impacts if a portion of raw sewage within LVMWD is exported to the City of Los Angeles sewer system, as mentioned on page 3-7 of the report.

We also made these comments in a letter dated January 21, 1976, to EDAW, Inc. on the review edition of the subject document. The response to these comments does not appear in the revised document.

Page 3-6 - it is indicated that the LVMWD has undertaken nutrient and virus studies. Since these studies have been dropped the final EIS/EIR should reflect this information.

With respect to the section titled "Effluent Discharge to Malibu Creek" (pages 3-5,6,7) this Regional Board held a workshop on October 4, 1976, relative to Malibu Creek and Lagoon, and present and possible future effluent discharge from Tapia Plant. During that workshop, attended by interested agencies and the general public, the Regional Board received input relative to the environmental impacts which might be occasioned by continuous discharge of treated effluent to Malibu Creek. This workshop also set the groundwork for a formal public hearing at an upcoming Regional Board regular meeting to reconsider the District's proposel for year-round discharge to Malibu Creek.

We are currently reviewing the waste discharge requirements for the District's Tapia plant in response to a recent Order by the State Water Resources Control Board.

Very truly yours,

Raymond M. Hertel

RAYMOND M. HERTEL
Executive Officer

cc: State Water Resources Control Board, Division of Water Quality
ATTN: Dennis Anctil
Las Virgenes Municipal Water District

Response To California Regional Water Quality Control Board - Raymond Hertel (#34)

1. The tie-in possibilities of the Topanga line to the Malibu system will be discussed in the Draft Addendum. The Draft EIS/EIR only covers those alternatives described in the AWFP. The comment has been forwarded to the facilities plan consultant for consideration.

2. This issue will be addressed in the Draft Addendum pending further review.

3. The impacts of exporting a portion of raw sewage to the Los Angeles City System will be insignificant due to the small amount going into the larger system. Those interested in reviewing the impacts of the L.A. City Sewage System should contact EPA, Region IX, in San Francisco.

Page 3-6

So noted.

[illegible] A
[illegible] IA
COMM CENTER
Nov 22 12 44 PM '76

(HE-132)35

November 18, 1976

Environmental Protection Agency
Region #9
100 California Street
San Francisco, California
94111

RE: Las Virgenes-Triunfo-
Malibu-Topanga Area Wide
Facilities Plan

Gentlemen:

It seems to me there is more at stake than water pollution in planning a sewage system for not only this area, but the whole of California.

California faces a water shortage, as well as the national shortage of gasoline. By planning a sewage system which would either re-use the waste waters for irrigation or convert the waste into natural gas, we could help face at least one of these shortages at the same time as we protect our ocean from further pollution.

It does seem a waste of an opportunity for real progress in environmental protection to consider a sewage system for this or any other area which continues to waste waste.

Sincerely,

Mrs. Marsha Fullmer

Mrs. Marsha Fullmer
28935 Selfridge Drive
Malibu, California
90265

cc: Water Resources Control Board
107 South Broadway
Room 4027
Los Angeles, California
90012

Response To Mrs. Marsha Fullmer (#35)

The policy of EPA and LVMWD has been, and will continue to be, to maximize the use of reclaimed water. Reclaimed water is currently used for spray irrigation on landscaped areas, orchards, open space and golf courses. The Calabasas Reclaimed Water Line is the most recent LVMWD project which will increase the use of reclaimed water. LVMWD encourages the use of reclaimed water whenever possible to reduce the need for potable water.

At this time, there is not yet enough research completed on conversion of waste into a usable gas, and the small quantities discussed in the AWFP would make conversion economically unfeasible.

(HE-132)48

REC'D BY E.P.A
REGION IX
COMM. CENTER
Nov 29 11 49 AM '76

MONTE NIDO VALLEY
PROPERTY OWNERS ASSOCIATION
P. O. BOX 84
CALABASAS, CALIFORNIA 91302

COLD CREEK CANYON
DARK CANYON
MONTE NIDO

MALIBU MEADOWS
MALIBU OAKS
EDENWILD

November 26, 1976

Environmental Protection Agency, Region IX
Attn: Hearings Office
100 California Street
San Francisco, California 94111

Dear Hearings Officer,

We wish to go on record with this addendum to our testimony of Nov.17th:

1) We vigerously oppose any expansion of the Tapia treatment plant and suggest instead, sattelite plants in Westlake and Triunfo, to feed by gravity into recreation lakes until such time as these areas can be put on dual systems.

2) Please send us, as soon as possible, an explanation of the position of EPA to the funding of growth inducing projects, and please define what is meant by growth inducement.

3) No plan for our area should be implemented until the results of the Berman Bill Commission and Citizens Committee to the L.A. County General Plan are completed.

Thank you very much,

Joan H. Kay

Joan H. Kay, pres.

Please direct mail to my home address:

25644 Nebo Drive
Calabasas, Calif. 91302

Response to Joan Kay, Monte Nido Valley Property Owners Association (#43)

1) This alternative, as well as others suggested in the AWFP are those now being established to be discussed in the Draft Addendum.

2) Any local agency can construct projects with unlimited capacity, as long as they can fund those projects. However, under the National Environmental Policy Act regulations, it is the responsibility of the local agencies to responsibly plan for the growth accommodating expansion. Commitments to minimize the identified adverse impacts related to the increased population are the responsibility of the local agency. Minimization of identified impacts are made through the adoption of appropriate mitigation measures.

3) The Draft Addendum, which will address further alternatives, will be coordinated with the results of the L.A. County General Plan and the SMMCPC plan, depending upon the completion date and timing of all three documents.

Reproduced from best available copy.

(HE-132) 44

REC'D BY E.P.A
REGION IX
COMM CENTER

Nov 29 12 29 PM '76

Environmental Protection Agency, Region IX
Attention: Hearings Office HE 132
100 California Street
San Francisco, California 94111

November 27,1976

Dear Sirs:

I would like to comment for the record (as a private citizen) on the Las Virgenes-Triunfo-Malibu-Topanga Draft EIS and EIR, # HE132.

CONCERN: The location of the sewerage treatment plant in the Malibu Creek flood plain area.

This facility suffered damage and great danger in the 1969 heavy rain fall. This high water threat proceeded the massive build up and developement of the Westlake area and neighboring communities. The same amount of rain today would be catastrophic due to the excess runoff. It would threaten the environment, lives, and property(especially in the Malibu area).

RECOMMENDATIONS: That the EIS and EIR are rejected and completely redone, because they failed to consult the County Flood Control Agency and ascertain the dangers to the sewerage plant and the threat of massive flooding down stream.

That the EPA stop all further development in Los Angeles County and Ventura County, that lie in the water shed area of Malibu Creek drainage area until a factual, open public, hearing with the Los Angeles County Flood Control Agency can determine the degree of danger to all concerned.

Will you please send written reply to the latter recommendation.

Yours truly,

Richard E Hubbard

Richard E. Hubbard
25631 Nebo Dr.
Calabasas, California 91302

REH/jh
cc/ L.A.County Flood Control
Malibu City Council

Response To Richard E. Hubbard (#44)

It is known that development will increase the potential for runoff. However, other increased runoff has not been recognized as posing a severe threat to downstream areas. EPA does not regulate or control land uses - that is a local prerogative They do, however, have review power over certain projects and could insist mitigation measures be implemented if there was the potential for downstream flooding or other environmental hazards.

(HE-132) 48

TRIUNFO COUNTY SANITATION DISTRICT
Ventura County, California
597 EAST MAIN STREET
VENTURA, CALIFORNIA 93001
TELEPHONE 648-6131

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DEC 1 1976
REGION IX

November 30, 1976

Environmental Protection Agency
Region IX
100 California Street
San Francisco, California 94111

Attention: Hearings Office

Subject: LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR

Gentlemen:

Representatives of this District attended the hearings in Malibu on November 17, 1976 and in Agoura on November 18, 1976. The Triunfo County Sanitation District (TCSD) has previously provided input during the preparation of the Draft EIS/EIR and these comments and suggestions have been incorporated in the final draft with one major exception, i.e. effluent discharge beyond 8 mgd.

The following excerpt is from a letter from Mr. H. P. Nilmeier to EDAW, Inc. dated January 19, 1976 (copy enclosed).

> "Page 3-5, Section 3.2.5, First Paragraph: The environmental impact statement or report will be considered by Triunfo to be incomplete until it covers the area of discharge beyond 8 mgd. The analysis must be beyond 8 mgd since the firm present commitments of Triunfo to serve the North Ranch of approximately 5,400 residential units and the approximately 7,500 residential units in the Metropolitan Development Corporation's Oak Park Plan will soon exceed the capacity of the 8 mgd of the present Tapia plant and effluent disposal problem. The EIS will be subject to challenge since the Malibu residents are against the large proposed development in Triunfo, and we feel the analysis must include the disposal problems that may be expected when the flows approach 20 to 25 mgd. W. Stokes of Las Virgenes assured Triunfo in December, 1975 that the analysis would be beyond 8 mgd. Also, on January 7, 1976, the Board of Directors of Triunfo County Sanitation District officially requested Las Virgenes that the reports include a long term flow analysis that goes beyond 8 mgd."

The Triunfo service area population is expected to increase by 38,000 within the next 12 years. This increase is predicted upon the following approved developments:

Oak Park (MDC)	15,500(1)
Westlake North Ranch	15,700
Westlake	4,300
Bell Canyon	2,500
TOTAL	38,000

The estimated average flow of 3.8 mgd from these developments plus the existing flow of 4.1 mgd approximate the 8.0 mgd being used in the EIS. In addition, the LVMWD will undoubtedly experience nominal growth which, when added to the total flow, will exceed the 8.0 mgd in the near planning period.

With the knowledge that the flow at the Tapia Plant will exceed 8 mgd in the near future, it is not logical to go through the costly and time-consuming EIS/EIR process with an 8 mgd limitation in the reports. Under Federal and State statutes, another EIS/EIR will be required when flows over 8 mgd are being considered.

In addition, an analysis of flows over 8 mgd may change the ranking of the alternatives in cost effectiveness, public acceptability, environmental impact, etc. As an example, the Water Quality Control Board Control Plan for Basin 4B contains the following observation on page II-16-287:

> "Should growth in the area tributary to Tapia WRF exceed Series Eo projections and should surplus effluent discharged to the (Malibu) Creek exceed 10 mgd (15 cfs), other means of effluent disposal must be pursued."

It appears that the Eo projections will be exceeded and that the 10 mgd discharge will be exceeded. For the alternative of discharge to Malibu Creek, the EIS/EIR should indicate whether or not there should be a restricted upper limit of flow to Malibu Creek, since it appears from past reports of Las Virgenes and Triunfo that ultimate development in the two districts may result in an upper average flow in the range of 25 mgd to 44 mgd.

At this time a combination of alternatives may be required to handle the effluent discharged from Tapia. This hypothesis illustrates that flows over 8 mgd must be considered to make a true comparison of the alternatives.

The State of California Water Resources Control Board in a letter of April 16, 1976 to Las Virgenes Municipal Water District included items that have not been shown in the

---

(1) Population estimate by MDC

EIS/EIR report or the Engineering Facility Plan. The above letter indicates that grant funds will be allocated for pipeline facilities on a year 1997 Eo population of 81,315 (8.867 mgd flow). Also, the Chapter 7 comment of different degrees of treatment for the various alternatives has not been included. It is not clear if the ocean discharge requirements are for 85 percent removal or for the much higher degree of removal that occurs in the present plant effluent. The cost of an ocean outfall initially much larger than 8 mgd must be considered and the costs shown.

We assume that the printing and typographical errors will be corrected as previously agreed between the various staffs.

We assume that the EIS/EIR includes the continuing discharge of sewage from the Bell Canyon area of Triunfo County Sanitation District to Tapia Water Reclamation Facility.

Very truly yours,

HP Nilmeier

H. P. Nilmeier
Assistant District Engineer

HN:ckl

Enclosure (1) TCSD ltr of January 19, 1976 to EDAW, Inc.
(2) California Water Quality Control Board ltr of April 16, 1976 to LVMWD

cc: California State Water Quality Control Board
Las Virgenes Municipal Water District
Boyle Engineering, Inc.
EDAW, Inc.

648-6131

January 19, 1976

EDAW, Inc.
220 Newport Center Drive - Suite 20
Newport Beach, California 92660

Subject: THE AREA-WIDE FACILITIES PLAN (EDAW) - DRAFT EIS

Gentlemen:

The Triunfo County Sanitation District staff has reviewed the Draft EIS/EIR for the Area-Wide Facilities Plan being prepared by your agency and offer the following comments for your consideration.

Page 2-38, First Paragraph, First Sentence:

The TDS standard of 500 mg/l is a standard established by the Federal Government. The California Department of Health has established a recommended upper limit of 1000 mg/l; however, a temporary limit of 1500 mg/l is permitted where no other better water supply is available.

Page 2-131, California Condor:

The last sentence refers to the condor as an animal.

Page 2-177, First Paragraph:

The Metropolitan Development Corporation has indicated recently that their projected population estimate for their Oak Park project is approximately 22,533 when completed in about 13 years. When this projected population is added to the existing 2,170 population, the total of 24,703 for the Oak Park area is lower than the 28,000 projected in the EIR.

This, and subsequent population data in these comments, reflect a refinement of the data furnished LVMWD in October, 1975. The total increase in population of about 45,000 in the TCSD service area remains unchanged.

Page 2-177, Second Paragraph:

Specific Plan No. 4 (North Ranch) has recently been approved by the City of Thousand Oaks and the County of Ventura. This plan contemplates a total of 5,464 units in the Triunfo service area with a projected population of 15,687, which is considerably higher than the 3,577 in the report.

Very low density	-	1290 units @ 3.8	-	4,902
Medium density	-	1692 units @ 3.0	-	5,076
High density	-	2482 units @ 2.3	-	5,709
		Total		15,687

In addition to the projected population for Oak Park (MDC) and North Ranch, the Westlake and Bell Canyon areas will contribute additional population to the Triunfo service area as follows:

Westlake

2,806 lots have been approved for the Westlake Village area with 1,768 lots presently improved, leaving 1,038 yet to be connected. It is estimated that these lots will produce a population of about 4,300 in addition to the existing population of 9,754 for this area.

Bell Canyon

This development has a total of 666 residential lots with 598 remaining to be improved. When fully developed, this area is expected to contribute a total population of 2,530 to the Triunfo service area.

Page 2-210, First Paragraph, Last Sentence:

The statement that the Bell Canyon area will soon be included in the service area of the City of Los Angeles is not correct since no firm contracts have been proposed. The Triunfo County Sanitation District has no knowledge of any final discussion regarding this subject that will permit funding for this project.

Page 3-5, Section 3.2.5, First Paragraph:

The environmental impact statement or report will be considered by Triunfo to be incomplete until it covers the alternate of discharge into Malibu Creek and covers the area of discharge beyond 8 mgd. The analysis must be beyond 8 mgd since the firm present commitments of Triunfo to serve the North Ranch of approximately 5,400 residential units and the approximately 7,500 residential units in the Metropolitan Development Corporation's Oak Park Plan will soon exceed the capacity of the 8 mgd of the present Tapia plant and effluent disposal problem. The EIS will be subject to challenge since the Malibu residents are against the large proposed development in Triunfo, and we feel the analysis must include the disposal problems that may be expected when the flows approach 20 to 25 mgd. W. Stokes of Las Virgenes assured

Triunfo in December, 1975, that the analysis would be beyond 8 mgd. Also, on January 7, 1976, the Board of Directors officially requested Las Virgenes that the reports include a long term flow analysis that goes beyond 8 mgd.

EDAW, Inc., Boyle Engineering, Inc. and Las Virgenes are referred to the publication entitled "Facilities Planning and Project Report Guidelines" (January 1975) published by the California State Water Resources Control Board, which states in part:

"A first step in the process of selecting the best alternative project is a complete analysis of all wastewater disposal and reclamation alternatives in light of the policies and objectives of interested local, State and Federal agencies and long range area needs. The project report must include this analysis and set forth for further consideration, all viable disposal and reclamation alternatives and the level of treatment necessary for each.

Discharge requirements for discharges to surface waters are now a part of NPDES Permits issued under the National Pollution Discharge Elimination System. Probable discharge requirements for each alternative must be developed by the applicant before the alternative can be evaluated. Probable requirements should include only those parameters which will influence plant design. The probable requirements should be developed through consultation with the Regional Board staff, who will act in an advisory capacity, and by review of the basin plan and other planning data.

Planning of publicly-owned wastewater treatment works will provide, as minimums, for secondary treatment and for application prior to 1983 of Best Practicable Waste Treatment Technology (BPWTT-Manual of References) meeting EPA criteria. For most water quality segments (Manual of References), meeting the more stringent effluent limitations corresponding to the established waste load allocations would be required. In this case, the probable waste discharge requirements would be more stringent than that required for BPWTT.

Probable discharge requirements can have a significant impact on the alternatives under consideration. Some probable discharge requirements may specifically prohibit discharge to surface waters during certain periods, and others may establish quality constraints which effectively eliminate certain discharge alternatives.

Before project concept approval, the Regional Board staff must confirm that the probable waste discharge requirements for each viable alternative area adequate. Prior to State certification of the project, the Regional Board staff must certify that the adopted waste discharge requirements contained in the NPDES permit are current and adequate."

It will be necessary for the Malibu Creek discharge to include the cost analysis necessary to meet all Federal, State and local requirements.

Your attention is also called to the fact that the Las Virgenes Triunfo Tapia Plant must advise the California Water Quality Control Board of the plans for treatment and effluent disposal when the actual average flow at the plant is 6.0 mgd.

Page 5-2, Section 5.1.1, Fourth Paragraph:

See comments for Page 2-177. Our estimate for the potential population in the Triunfo service area are as follows:

Area	Existing	Projected	Total
1. Oak Park (MDC)	2,170	22,533	24,703
2. Bell Canyon	258	2,272	2,530
3. North Ranch	-	15,687	15,687
4. Westlake	9,754	4,305	14,059
Totals	12,182	44,797	56,979

Page 5-3, Third Paragraph:

The current flow records indicate that TCSD is contributing approximately 25% of the total flow at Tapia WRF.

Very truly yours,

H. P. Nilmeier
Assistant District Engineer

CH:uj

cc: LVMWD
EPA (Frank D. Zaletel
Calif. WQCB (Don Holtry)
Boyle Engineering (Y. Katsura and M. Ford)
L. A. County Engineer (Hans Giroud)

CALIFORNIA, THE RESOURCES AGENCY
EDMUND G. BROWN JR., Governor

WATER RESOURCES CONTROL BOARD
ISION OF WATER QUALITY
O. Box 100
acramento, CA 95801
6) 445-7971

In Reply Refer
to: 510:BS

APR 16 1976

Mr. H. W. Stokes
General Manager - Chief Engineer
Las Virgenes Municipal Water District
4232 Las Virgenes Road
Calabasas, CA 91302

LAS VIRGENES MUNICIPAL WATER DISTRICT, PROJECT NO. C-06-1140, PROJECT REPORT REVIEW LETTER

This office has reviewed the draft of the Areawide Facilities Plan for Las Virgenes, Triunfo, Malibu, and Topanga. Our comments do not cover the financial plan and revenue program which were not included in the draft report. It is our understanding that the financial plan and proposed revenue program with an implementation schedule will be included in the final draft of the Facilities Plan when an apparent best alternative is selected.

Our comments are:

Chapter 1 - Introduction

1-7 Where the discharge of treated effluent to the Malibu Creek is addressed in Chapter 1 and subsequent chapters, modifications should be made reflecting the latest requirements which limit discharge between mid-November and mid-March to excess of that which can be reclaimed.

Chapter 2 - Summary and Recommendations

2-10 If no comprehensive Infiltration/Inflow (I/I) analysis has been made on the Las Virgenes Municipal Water District (LVMWD)/Triunfo County Sanitation District (TCSD) collection system, such a study should be initiated to demonstrate whether or not excessive I/I exists. If adequate flow data is available so as to disprove the necessity for such a study, then the requirement could be waived.

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With the selection of the apparent best alternative project, Chapter 2 should be completed with the inclusion of a summary of the best alternative project as well as recommendations and procedures for implementing the project.

Chapter 4 - Existing and Projected Water and Wastewater Characteristics

4-7 Wastewater characteristics should be identified and quantified in greater detail. A more detailed characterization will help facilitate the identification of potential uses for the reclaimed effluent. A format for the presentation of this data might include something similar to Table 5-4.

4-14 The Peak Dry Weather Flow (PDWF) and Peak Wet Weather Flow (PWWF) are cited in Table 4-3a as equal, which must be in error. The difference between PDWF and PWWF is the I/I experienced by the system. If the data supplied by Table 4-3a is correct, then there is no I/I. We would like additional data so we may analyze wet and dry weather flows Please submit representative data, i.e., one month of wet weather flows and one month of dry weather flows, so we may make such an analysis.

Grant Eligible Flows

Eligible project costs of the sludge handling facility expansion and the effluent disposal system will not include the cost of capacity in excess of that required to serve the projected population and associated commercial establishments within the service area within ten years and 20 years, respectively, of erection of the facilities and the industrial establishments which are in operation at that time.

We calculated the grant eligible flows using the following information: The present domestic and commercial flow from LVMWD and TCSD is 3.905 MGD. The daily per capita contribution of wastewater is 113 gpcd (3.905 MGD ADWF/.0346 = 113 gpcd). This per capita flow exceeds the flowrate limit of 100 gpcd used for determining the eligibility of projected flows. Therefore, 100 gpcd is used in determining all eligible flows.

Population Data:

Present Population:	34,600
1987 E-O Population Projection:	64,174
1997 E-O Population Projection:	81,315

Grant Eligible Treatment Plant Flows:

Existing ADWF = 4.195 MGD

1987 Projected ADWF = 4.195 MGD + 100 gpcd (64,174 - 34,000) = 7.152 MGD

Grant Eligible Flows for Interceptors, Outfalls, and Sewer Lines:

Existing ADWF = 4.195 MGD

1997 Projected ADWF = 4.195 MGD + 100 gpcd (81,315 - 34,600) = 8.867 MGD

Peak dry and peak wet weather flows can be calculated when Table 4-3a is corrected and additional wet weather flow data is received as requested above.

Chapter 7 - Project Alternative Analysis

7-27 An amortization rate based on 9 percent and 20 years was used in the analysis. For all economic analyses, a capital amortization rate based on 7 percent and 20 years should be used in compliance with Federal Regulations dated February 11, 1974, Appendix A(f)(5).

The cost analysis of the effluent disposal alternative does not include the analysis of required treatment for the specific method of disposal. Different methods of disposal do not necessarily require the same degree of treatment. For example, ocean discharge requires secondary treatment, whereas certain land applications may require filtered secondary or tertiary treated effluent. The cost analysis should include the required treatment.

The format of Chapter 7 does not conform with the Project Report Guidelines as does Chapters 1 through 6. We assume this chapter will be revised to conform with the Guidelines upon selection of the apparent best project alternative.

If the virus study is conducted and findings indicate success in the removal of viruses from wastewater, the discharge of effluent to Malibu Creek should be evaluated as an effluent disposal alternative. The evaluation should include a cost-effective analysis of the required

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treatment which is expected to be established by the virus study. Additionally, the selection of the treatment process should reflect the conclusions of other studies addressing the subject of effluent quality and discharge to Malibu Creek.

Chapter 8 - Summary Comparison of Project Alternatives

This chapter should be completed upon the selection of an apparent best alternative project for the disposal of effluent as well as for the solids handling facility. Additionally, a final chapter entitled "Apparent Best Alternative Project" should be included in the final draft containing the items called for in the Facilities Planning and Project Report Guidelines.

General Comments

The Table of Contents should be expanded to include section headings and page numbers in each chapter.

Areawide Facilities Plan, Volume 2, should be labelled "Appendix".

There are some typographical errors that need to be corrected on pages I-11, II-20, III-48, etc.

This Facilities Plan has been reviewed for completeness and adequacy. Upon the selection of an apparent best alternative project, this office will review the selection and determine if the background information reviewed in this draft adequately supports the choice.

To expedite the issuance of our concept approval, the timely submittal of an apparent best alternative project as well as the resolution of the above matters is desirable. If you have any questions, please contact me at (916) 322-6576.

Bill Sukenik
WQC Engineer

cc: Mr. M. E. Ford, Boyle Engineering
Mr. Rich Williamson, EPA, Region IX
CRWQCB, Los Angeles Region (4)
Mr. Hans Giraud, Los Angeles County
Mr. H. P. Wilmeier, Triunfo County Sanitation District ✓

Response To Triunfo County Sanitation District (#48)

Responses are made to each comment on a point by point basis.

Page 3-5, Section 3.2.5, First Paragraph

It is the policy of SWRCB and EPA to provide Clean Water grant funds for a project on a priority basis. The priority ratings are based on the criticality of the proposed projects. Because of the numerous requests for Clean Water Grant funds, each project is only able to obtain one grant from these funding agencies.

The Tapia Treatment Plant was originally designed to be constructed in phases with a maximimum capacity of 8 mgd. The first phase only allowed a 4 mgd operating capacity. This phase was accomplished with funds from a Clean Water Grant. At this time the project now being considered is to bring the plant up to its full operating capacity.

The expansion of Tapia is not a growth inducing project; rather, it is a growth accommodating project which does not enable the servicing of the entire projected population for the LVMWD/TCSD area.

In order to service the entire projected population, it is anticipated that further study will occur during the preparation of the Draft Addendum and an area wide sewage management plan, with various alternatives, will be considered.

Page 2- 3,8 First Paragraph, First Sentence

So noted.

Page 2-131, California Condor

Webster defines the term animal as: "any of a kingdom (Animalia) of living beings typically differing from plants in capacity for spontaneous movement and rapid motor response to stimulation."

Page 2-177, First Paragraph and Second Paragraph

So noted. These figures were corrected in the Final Draft EIS.

Page 2-210, First Paragraph, Last Sentence

So noted. This was correct in the Final Draft EIS (see page 2-228).

Page 3-5, Section 3.2.5, First Paragraph

See previous response to earlier comment (page 3-5, Section 3.2.5). Effluent disposal (including dumping into Malibu Creek) will be addressed in the Draft Addendum.

Page 5-2, Section 5.1.1, Fourth Paragraph

See response to comment concerning Page 2-177.

Page 5-3, Third Paragraph

So noted. See page 5-6.

GERALD DURYEE
25653 WILDWOOD DR
CALABASAS CA 91302

western union Mailgram

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EPA, REGION 9
HEARINGS OFFICE
100 CALIFORNIA ST
SAN FRANCISCO CA 94111

REFERENCE EIR/EIS AREA-WIDE FACISITIES PLAN, LAS VIRGENES MUNICIPAL WATER DISTRICT.

THE EIR/EIS IS INADEQUATE AND MUST BE RESTUDIED AND REWRITTEN IN THE AREA OF RAW SEWAGE SPILLS AND PLANT MALFUNCTIONS RESULTING IN RAW SEWAGE SPILLS DUE TO CHEMICAL WASTE, LOSS OF POWER, EQUIPMENT MALFUNCTIONS, ORGANISM DEATHS, ETC. THE ONLY MITIGATING FACTOR CITED IS A PROPOSED RESERVOIR AT GOAT BUTTES. HOWEVER, GOAT BUTTES IS PART OF A STATE PARK. UNDER CALIFORNIA LAW, USE SUCH AS THIS IN A STATE PARK IS ILLEGAL. THUS, NO MITIGATING FACTORS OF A PRACTICAL NATURE ARE CONTAINED IN THIS EIR/EIS. SINCE TAPIA SEWER PLANT SHUTDOWNS AND RAW SEWAGE DISCHARGES ARE DOCUMENTED AS ALREADY HAVING OCCURRED, THE EIR/EIS INADEQUACY IS CLEAR AND IT IS THE EQUIVALENT OF CONSIDERING OFFSHORE OIL DRILLING PERMITS WITHOUT A SERIOUS DISCUSSION OF OIL SPILLS. THEREFORE, UNTIL THE EIR/EIS IS CORRECTED IN THIS AREA, NO FUNDS FOR TAPIA PLANT EXPANSION SHOULD BE GRANTED BY EPA

GERALD DURYEE
25653 WILDWOOD DR
CALABASAS CA 91302

00128 EST

MGMCOMP MGM

Response To Gerald Duryee (#52)

Issues regarding additional stand-by back-up plant safety systems will be addressed in the Draft Addendum.

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Malibu Creek Docents
Jan Langer
7701 Manchester Avenue
Playa del Rey, CA 90291

December 1, 1976

Environmental Protection Agency
Attention: Hearings Office
Region IX
100 California Street
San Francisco, CA 94111

Dear Sir:

This letter is in response to the Area Wide Facilities Plan for the Las Virgenes Municipal Water District Draft EIS/EIR.

The Malibu Creek Docents are presently providing the interpretive services for Malibu Creek State Park, and as such, we are concerned with the park's resources and development.

We are opposed to the construction of any dam for any purpose within park boundaries, on Malibu Creek or any of its tributaries. Alternatives 1 and 2 presented in the Draft EIS/EIR propose the construction of a 145' high earth fill dam for the purpose of holding "processed sewage" for 30 days in the event of a malfunction at the Tapia Treatment Plant, with disposal to Calabasas Creek or Conejo Creek, respectively. The proposed location of this dam is on Malibu Creek in Triunfo Canyon south of the Goat Buttes. This proposed dam and resultant reservoir would be contained within Malibu Creek State Park. The construction of such a dam for the purpose of holding "processed sewage," from an outside source nonetheless, is totally incompatible with the concept of a State Park. The natural resources of this unique park would be adversely affected and serious health problems would be imposed for park visitors.

Please include these comments in the hearing record.

Sincerely,

Jan H. Langer

Jan H. Langer
Chairman
Malibu Creek Docents

Response To Jan H. Langer (#58)

Conceptually a dam was envisioned for Alternative 1 and 2 and this dam was placed according to the engineering needs of the conceptual project. At this time, the installation of a dam in the Malibu Creek State Park is not considered as a viable alternative, and other alternatives will be studied in the Draft Addendum.

(HE-132) 84

[illegible] E.P.
REGION IX
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UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SECRETARY
PACIFIC SOUTHWEST REGION
BOX 36098 • 450 GOLDEN GATE AVENUE
SAN FRANCISCO, CALIFORNIA 94102
(415) 556-8200

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REGION IX

ER 76-963

December 2, 1976

Mr. Paul De Falco, Jr.
Regional Administrator
Environmental Protection Agency
Region IX
100 California Street
San Francisco, CA 94111

Dear Mr. De Falco:

The Department of the Interior has reviewed the draft environmental statement for Areawide Facilities Plan for Las Virgenes, Triunfo, Malibu and Topanga; Ventura and Los Angeles Counties, California.

The report refers to the Ventura County Water Management Project Feasibility Investigation, which is being conducted by this Department's Bureau of Reclamation. The report states that it does not appear that there is a need for this additional water. This statement should be clarified. The Bureau of Reclamation is conducting water yield operation studies which will show the amount of Tapia wastewater that can be used in Ventura County. These studies will not be completed until December 1976. However, at this time it does appear that Tapia wastewater could be used only during low flow months and that winter storage or an alternative disposal plan would be required during high flow months.

The Endangered Species Act of 1973 (16 U.S.C. 87 Stat. 884) gives the Secretary of the Interior the administrative authority for the act. The Department of Agriculture, pursuant to Section 3(10) of the act, has enforcement authority over the importation and exportation of terrestrial plants. The Endangered Species Act defines two classifications of fish, wildlife, and plants - threatened and endangered. The environmental statement uses the State of California's designation of "rare" and "endangered." For Federal consistency, we suggest you use the Federal classification of "threatened" and "endangered." In this context, there is a list of proposed endangered flora published by the Fish and Wildlife Service in CFR, Vol. 41, No. 117, dated June 16, 1976. You may wish to contult this list for additional information.

The statement on page 2-202, paragraph 3, regarding recreation acreage deficiencies needs to be clarified. The figures presented indicate a large decrease in the deficiency of local parklands by 1990 rather than an increase.

For an updated review of existing recreational opportunities within Los Angeles County, we refer you to a recent study by the Pacific Southwest Regional Office of this Department's Bureau of Outdoor Recreation entitled, "Regional Urban Open Space, Los Angeles County, Technical Working Paper," dated October, 1976. The report is available at the Bureau's office in San Francisco.

The statement appears to adequately address Federal regulations for cultural resources. However, we cannot properly assess and evaluate the impact of the proposed project and its alternatives upon the archeology of the area without more information concerning the presence or absence of cultural resources.

After the facility site selections have been made and right-of-way alignments have been identified, but prior to any final decisions regarding exact locations are reached, all cultural resources which might be affected by the project should be located, described and evaluated for their National Register potential. The location of cultural resources can best be accomplished through an intensive, on-the-ground survey conducted by a qualified archeologist. All areas subject to potential impacts (i.e. roads, disposal areas, treatment plant site, pipeline route, etc.) should be surveyed. We suggest the results of the studies be incorporated into the decisionmaking process for determining final facility sites and right-of-way alignments. Other things being equal, we recommend the locations which would have the least effect upon cultural resources be selected.

Archeological sites are fragile and nonrenewable resources that warrant protection and preservation whenever possible. Nomination to the National Register of Historic Places can further ensure the protection of sites. If significant cultural resources are identified and deemed eligible for inclusion, they should be nominated to the National Register and compliance with Title 36 CFR, Part 800.4 should be documented in the final statement.

In case sites with National Register potential exist in development areas, there should be mechanisms that allow for maximum avoidance of adverse impacts by relocation or redesign. If cultural resources cannot feasibly be avoided, an appropriate mitigation program should be developed in consultation with the State Historic Preservation Officer and the Advisory Council on Historic Preservation.

Copies of any comments received, including the recommendations from the State Historic Preservation Officer mentioned on page 10-6 should be included in the final statement. In addition, we suggest the final statement include information indicating the project location, the precise areas surveyed, resources located and identified, the effects of the project upon the cultural resources, the archeologist's recommendations, and proposed mitigation measures for any affected cultural resources.

Copies of any archeological reports should be forwarded to the Western Archeological Center, National Park Service, P. O. Box 49008, Tucson, Arizona 85717, so that a more comprehensive review of the final statement will be possible.

In addition, subsequent to the issuance of the draft environmental impact statement, Humaliwo (Malibu Site) was added to the National Register of Historic Places on September 1, 1976. The effects of the project upon this site should be assessed and the State Historic Preservation Officer and Advisory Council on Historic Preservation consulted for an appropriate course of action concerning this site.

We appreciate the opportunity to review and comment on the draft statement.

Cordially,

Webster Otis

Webster Otis
Special Assistant to the Secretary

cc: OEPR w/c incoming comments
Regional Director, BuRec, Boulder City
Regional Director, FWS, Portland
Regional Director, BOR, San Francisco
Regional Director, NPS, San Francisco
Director, USGS, Reston, Attn: L. Bonham
Director, BOM, Washington, D.C.
State Director, BLM, Sacramento

Response to the United States Department of the Interior, Office of the Secretary, Pacific Southwest Region, Mr. Webster Otis (#64)

- The Ventura County Water Management Project Feasibility Investigation will probably not be completed until late 1977. It does appear that Tapia wastewater could be used only during low flow months and that winter storage or an alternative disposal method would be required by Tapia during high flow months.

- The Biota Section has been revised in the Final EIS. The classifications of "endangered" and "threatened" conform to the Federal classifications and, where applicable, the California designation of "rare" is utilized.

- The figures on page 2-202, paragraph 3 are consistent.

- A literature search has been conducted for archaeological and paleontological sites in the study area. Archaeological investigations for specific project sites contained in the Final EIS/EIR have been conducted. Mitigation measures have been suggested, where appropriate.

(HE-132) 65

UNITED STATES DEPARTMENT OF COMMERCE
The Assistant Secretary for Science and Technology
Washington, D.C. 20230

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REGION IX

November 29, 1976

Mr. L. Russell Freeman
Deputy Administrator
Environmental Protection Agency
Region IX
100 California Street
San Francisco, California 94111

Dear Mr. Freeman:

This is in reference to your draft environmental impact statement entitled, "Las Virgenes-Truinfo Malibu-Topanga Area Wide Facilities Plan." The enclosed comments from the National Oceanic and Atmospheric Administration, National Marine Fisheries Service, are forwarded for your consideration.

Thank you for giving us an opportunity to provide these comments, which we hope will be of assistance to you. We would appreciate receiving twelve (12) copies of the final statement.

Sincerely,

Sidney R. Galler

Sidney R. Galler
Deputy Assistant Secretary
for Environmental Affairs

Enclosure - Memo from: NOAA(NMFS)/10-27-76

(HE-132) 65

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Southwest Region
300 South Ferry Street
Terminal Island, California 90731

NOV 2 1976

October 27, 1976

FSW3/JJS

To: Office of Ecology and Environmental Conservation, EE

Robert L. Schuele [illegible] 1976

Thru: for Acting Assistant Director for Scientific and Technical Services, F5

From: Gerald V. Howard, Regional Director, FSW

Subject: Review of DEIS #7609.49 - Las Virgenes-Triunfo-Malibu-Topanga Area Wide Facilities Plan (EPA)

The subject DEIS which accompanied your memorandum of September 28, 1976 has been reviewed by the National Marine Fisheries Service. The following comments are offered for your consideration:

Specific Comments

2.0 Environmental Setting
2.2 Natural Environment
2.2.6 Coastal Animal and Plant Population

Page 2-99, paragraph 7 - The final sentence states that large kelp beds, estuaries, rocky coastal areas, and sandy beaches are among the marine resources of that area. Specific maps should be included indicating the size and location of those coastal kelp beds and the location and extent of the other habitat types listed above.

Page 2-103 - The discussion provided on the fishery population of the area is not adequate to allow a good assessment of the potential impacts of an ocean discharge. While the information presented on trawling is useful, of possibly equal importance is some quantitative discussion of the commercial and sport fisheries near the proposed alternative ocean discharge sites. Such a discussion should include species lists, quantities caught and approximate dollar values. Most of that information is available in publications by the California Department of Fish and Game.

2.2.6 Phytoplankton Nutrient Sources

Page 2-112, paragraph 2 - The justification for assuming that the zooplankton biomass estimates obtained in the CalCOFI program represent a baseline condition should be provided. Much of the CalCOFI data is strictly offshore, while the potential impacts of an ocean sewage discharge would be nearshore.

3.0 Project Alternatives
3.2 Effluent Disposal at Tapia WRF
3.2.3 Alternative 3, Ocean Outfall

Page 3-4, paragraph 3 - Since no stand-by reservoir is proposed for treatment plant upsets under this alternative, some discussion of potential impacts from the discharge of significant quantities of raw sewage to the ocean environment should be provided here.

3.4 Malibu Area Treatment and Disposal Alternatives
3.4.1 Central Treatment Plant

Page 3-9, footnote 1 - If the alternative of a single ocean outfall combining effluent from the Tapia plant with a Malibu plant is being considered the specific information on fisheries of the area should be developed and included as a supplement to this DEIS.

Figures 84 and 85 - Each of these figures displays an alternative method of ocean disposal quite close to an Area of Special Biological Significance (ASBS) designated by the State. The possibility of impacts from the ocean discharge of sewage effluent on the adjacent ASBS areas should be considered for both normal plant operations as well as possible treatment plant upsets.

4.0 Direct Impact of Alternatives
4.1 Impacts of Effluent Disposal Alternatives at Tapia WRF
4.1.3 Alternative 3 - Ocean Outfall - Oceanography

Page 4-22, paragraph 4 - It is stated that detectable traces of effluent from an ocean discharge as discussed in this section would probably impact an Area of Special Biological Significance. Because the existing Hyperion Outfall to the southeast already has an impact on that zone, the combined impacts of the Hyperion Outfall and that proposed in this section should be carefully considered.

Page 4-29, paragraph 4 - The conclusions made in this paragraph concerning the potential impact of a "worst case" discharge condition should be substantiated.

8.0 Unavoidable Adverse Impacts
8.3 Long Term/Operation Related Adverse Impacts

Page 8-5, final paragraph 7.0 - Once again the potential adverse impacts from an ocean disposal system having no reservoir, or fail-safe methods is mentioned. The statement is also made that no definitive effects can be predicted. Such information should be developed and included in a supplement to this DEIS if, in fact, an ocean outfall is being seriously considered in the vicinity of a designated ASBS.

Page 8-6, paragraph 6 - The detailed environmental analysis of the specific design of a selected alternative for an area wide facilities plan should be circulated as a supplement to this DEIS rather than as an FEIS. A more thorough public review would be possible in that instance.

Response To United States Department of Commerce, the Assistant Secretary for Science and Technology, Mr. Sidney R. Galler (#65)

The comments from Mr. Galler all relate to issues regarding effluent disposal and, as such, will be addressed in the Draft Addendum.

O.E.C.A.
308 Westwood Plaza
Los Angeles, California 90024

associated students **ucla**

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December 1, 1976

Environmental Protection Agency
Region IX
100 California Street
San Francisco, California 94111

RE: Statement of the Office of Environmental and Consumer Affairs on the Draft EIS/EIR on the Las Virgenes-Triunfo-Malibu-Topanga Area Wide Facilities Plan

The most important considerations for the future of the planning area are maintaining water quality and planning for maximum water conservation and wastewater reuse.

Water Quality
Winter discharge into Malibu Creek is necessary presently because methods for utilizing the quantity of waste water generated by the treatment plants are inadequate. Alternatives harnessing unique methods for reclaiming wastewater must be investigated to avoid the loss of unreclaimed treated wastewater to the creeks downstream and the possible degradation of the water quality of the creeks.

We oppose ocean discharge because of the possible adverse impacts on the aquatic environment.

Wastewater Reclamation and Reuse
Southern California is an area subject to drought where water is a precious resource. Plans for wastewater treatment must include maximum reuse of wastewater. The alternatives offered in the Draft EIS/EIR do not adequately develop plans for maximum utilization of treated wastewater. Detailed investigations must be conducted to determine the actual potential of water reuse for greenbelts, firebreak zones, recreational lakes, and other feasible alternatives before the decision is made in favor of dumping into the creek year round. The possibilities must be examined in terms of community needs, cost and energy tradeoffs, and possible health problems in areas of body contact recreation. Innovative concepts such as dual water lines to reclaim water should be examined.

Spray Irrigation
Areas for spray irrigation must be researched with respect to future availability. Rapid land use changes in the area may eliminate large areas from consideration. Studies on the effects of spray irrigation on the land and its biota, specifically the oak tree, are necessary before areas are designated for use for spray irrigation. State parks especially should be examined to see if they contain areas of biological or historical significance that could be adversely affected by spray irrigation.

Land Use Planning

Lack of sufficient and use planning in the study area makes it difficult to plan the future wastewater treatment facilities. Increased development will reduce the amount of land available for spray irrigation and other reclamation plans and will also increase the load on the wastewater treatment facilities and increase the amount of reclaimable wastewater. Area wide land use planning is needed now while there is still time to plan the direction and amount of growth best for the area and the people.

Conclusion

We appreciate this opportunity to comment on the Draft EIS/EIR on the Las Virgenes-Triunfo-Malibu-Topanga Area Wide Facilities Plan. We look forward to receiving your final report. One which will emphasize maximum wastewater reclamation and reuse.

Sincerely,

Lori Dawson

Lori Dawson
Water Quality Project
Office of Environmental and
Consumer Affairs, ASUCLA

LD/lh

Response To Associated Students - UCLA - (#66)

The policy of EPA and the LVMWD has been, and will continue to be, to maximize the use of reclaimed water. Reclaimed water is currently used for spray irrigation on landscaped areas, orchards, open space and golf courses. The Calabasas Reclaimed Water Line (which will provide water to the Calabasas Park golf course) is the most recent LVMWD project which will increase the use of reclaimed water. LVMWD encourages the use of reclaimed water whenever possible to reduce the need for potable water.

The concerns expressed dealing with effluent disposal will be addressed in the Draft Addendum.

(HE-132) 69a

SCAG
SOUTHERN CALIFORNIA
ASSOCIATION OF GOVERNMENTS
600 South Commonwealth Avenue • Suite 1000 • Los Angeles • California • 90005 • 213/385-1000

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REGION IX

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COMM CENTER

DATE: December 1, 1976

TO: Paul De Falco, Jr., Regional Administrator
Environmental Protection Agency, Region IX

Attn: Hearing Office

FROM: Metropolitan Clearinghouse

RE: Draft EIS/EIR: Las Virgenes-Triunfo-Malibu-Topanga Areawide Facilities Plan
SCAG File Number: 10051-WP

As required by OMB Circular A-95, information regarding the Draft EIS/EIR for the Las Virgenes Areawide Facilities Plan has been circulated to cities, counties and some special agencies in the SCAG region. We have not received any comments regarding the referenced document in response to this areawide notification. SCAG staff has also reviewed the Draft EIS/EIR for consistency with regional plans, programs and policies. A copy of our comments, including additional information and the relationship of the document to pertinent SCAG activities, is attached.

We have received a "notice of intent" from the Las Virgenes Municipal Water District to apply for a Step 2 grant to prepare plans and specifications for the selected Step 1 alternative. As noted in the attached letter to the District, we will be unable to take action on that grant request until a specific alternative is selected and the full application is submitted to SCAG for complete review. In order to avoid any unnecessary delays for the applicant in the processing of this application, we would appreciate receiving information regarding proposed EPA scheduling for the LVMWD application. Additionally, we would appreciate receiving a copy of the review procedures used for EPA's 201 grant program.

We hope the attached comments will be of assistance in the preparation of the Final EIS/EIR. If we can provide any additional information or assistance regarding this project, please contact us.

Clearinghouse Official

LK:fjw

cc: List Attached

Enclosures

CC to:

Tim Nanson, Staff Engineer
Las Virgenes Municipal Water District

James Haupt
State Water Resources Control Board

John A. Lambie, General Manager
Ventura Regional County Sanitation District

John Parkhurst, General Manager
Los Angeles County Sanitation Districts

Norman Murdoch, Director of Planning
Los Angeles County Department of Regional Planning

(HE-132)6yb

SCAG
SOUTHERN CALIFORNIA
ASSOCIATION OF GOVERNMENTS
600 South Commonwealth Avenue • Suite 1000 • Los Angeles • California • 90005 • 213/385-1000

DATE: December 1, 1976

TO: Timothy Nanson, Staff Engineer
Las Virgenes Municipal Water District

FROM: Metropolitan Clearinghouse

SUBJECT: Draft EIS/EIR Las Virgenes-Triunfo-Malibu-Topanga Areawide Facilities Plan
SCAG File Number: 10051-WP

In accordance with procedures contained in OMB Circular A-95, we have circulated notification of the Draft EIS/EIR for the Las Virgenes Areawide Facilities Plan to agencies within the SCAG region. We have not received any comments in response to this areawide notification. SCAG staff has also reviewed the document, and our comments are attached. These comments have also been forwarded to EPA in San Francisco for their consideration and possible incorporation into the Final EIS.

We are holding your preliminary application for Step II construction funding because it is not possible for us to process the grant request until Step I procedures are completed. The proposed project will be given careful review when the full application is submitted after selection of the alternative disposal methods has been made and this alternative has been addressed in the Final EIS/EIR.

As the designated 208 Waste Management Planning agency for the study area, SCAG must incorporate 201 Facilities Plans into its 208 plan. We recognize the difficulties which agencies face in developing cost effective and environmentally sound plans which can gain community acceptance, and believe it would be mutually beneficial for SCAG and Las Virgenes staff members to meet in the next few months to coordinate efforts and to determine the interface between your 201 Facilities Planning and SCAG's 208 Areawide Waste Treatment planning.

We hope the attached comments on the Draft EIS/EIR will be helpful to the District in preparing the Final Facilities Plan, and urge consideration of these comments in final reports. To avoid possible conflicts over alternative selection, it would be helpful if we could review the Draft Facilities Plan prior to alternative selection because of the background information that document contains. This would enable us to suggest possible mitigating measures during the planning process and formulate coordination of our planning processes. The Plan would also be of assistance in our review of subsequent grant applications for components of the chosen system.

We urge an early submittal of the Step II funding request when the remaining financial and environmental analyses are completed. We would appreciate being informed if additional alternatives are considered as a result of the public hearings which have been held on the Draft EIS/EIR.

If we can provide additional assistance during this planning period, or for clarification of any of these comments, please contact Joanne Aplet at SCAG.

Clearinghouse Official

JA:fjw

cc: James Haupt
State Water Resources Control Board

Paul De Falco, Jr., Regional Administrator
Environmental Protection Agency, Region IX

John A. Lambie, General Manager
Ventura Regional County Sanitation District

John Parkhurst, General Manager
Los Angeles County Sanitation Districts

Norman Murdoch, Director of Planning
Los Angeles County Department of Regional Planning

Enclosure

SCAG Comments Related to Las Virgenes Area-Wide Facilities Plan EIS/EIR

Growth assumptions in the EIS/EIR were based upon earlier SCAG forecasts. The EIS/EIR noted that SCAG was in the process of revisions would be incorporated into the Final EIS/EIR. To assist you with these changes, we are submitting SCAG's growth projections as adopted by the SCAG Executive Committee in December 1975.

		1975	1980	1990	1995	2000
CT	2626 (Portion)	300	300	300	300	300
CT	8004-8005	15,000	19,000	23,000	25,000	27,000
CT	8001-8003.02	27,000	35,000	43.000	47.500	52.000
CT	59.03	10,500	15,600	27,850	30,800	33,800
	73 (Portion)					
	74 (Portion)					
	75 (Portion)					
Total		52,800	69,900	94,150	103,600	113,100

As indicated on page 1-37 of the EIS, SCAG is directing areawide planning for both 208 Waste Treatment Management and Air Quality Maintenance. Because implementation of final alternative methods for disposing of effluent and solids may be affected by 208 plans, we believe close coordination during your plan selection process could be helpful to both the Las Virgenes Municipal Water District and SCAG.

Because the project lies in a critical air basin, affecting both Los Angeles and Ventura Counties, we are especially concerned about possible secondary impacts on air quality resulting from growth induced by implementation of the selected alternative. Therefore, we wish to insure coordination of the Final Areawide Facilities Plan with AQMP planning in both Ventura and Los Angeles Counties.

SCAG policies support maximization of local water resources, including reclaimed wastewater. We are, therefore, interested in further information regarding potential uses of treated water for irrigation of golf courses and landscaping. Although the Conejo Creek alternative refers to possible construction of a reclaimed water line for use by golf courses and greenbelts in Ventura County, there is inadequate information regarding the feasibility of this proposal.

We are also concerned about the lack of data regarding possible impacts to Mugu Lagoon which has been identified in SCAG's Draft Open Space Plan as of critical regional significance.

The land disposal alternative appears to be consistent with SCAG policies supporting conservation of open space land needed for sewage disposal, but development of this alternative would require close coordination with SCAG's 208 program in order to minimize possible runoff problems resulting from excessive irrigation. Also, we are concerned that proposed water usage may be excessive for supporting vegetation. We would, therefore, suggest further clarification regarding the type of plant life which will be utilized.

223<

Because the Calabasas Creek alternative could result in wastewater reaching the Los Angeles drinking water supply, more discussion is needed of this potential impact and resulting health effects.

Data within the EIS minimizes possible adverse impacts resulting from use of an ocean outfall. Earlier studies conducted by Dr. Rimmon Fay for SCAG's coastal study indicated a linkage between sewage effluent and kelp damage. This possibility is not explored in the EIS and needs to be amplified with the latest available data.

Benificial uses of reclaimed wastewater are consistently minimized in the Draft EIS because of the widespread availability of imported water within the study area. A comparison of the cost of imported water after 1983, and the cost of reclaimed water for irrigation, needs to be performed in order to fully evaluate the alternatives.

Response To Southern California Association of Governments (#69 a & b)

The revised SCAG growth projections (adopted by the SCAG Executive Committee in December 1975) will be utilized in the Final EIS/EIR.

To insure the coordination of planning efforts which will be necessary to mitigate the possible growth inducing impacts of the Area Wide Facilities Plan, the Las Virgenes Municipal Water District is currently discussing the mitigation measures (especially those pertaining to air quality) found in the EIS with all agencies, including SCAG, who would be involved in implementing mitigation measures. The LVMWD is requesting the affected agencies and governmental bodies' approval of mitigation measures in the EIS along with any other mitigation measures they can suggest. The District will then request from the affected agencies and governmental bodies an approved implementation schedule for the mitigation measures.

In the Final EIS (Chapter 3) the use of reclaimed water, including the costs to use reclaimed water by the Calabasas Golf Course, is thoroughly discussed.

The possible impacts to Mugu Lagoon and the potential for runoff resulting from excessive irrigation will be discussed in the Draft Addendum, as these concerns pertain to effluent disposal.

The Calabasas Creek alternative and those problems associated with an ocean outfall will also be addressed in the Draft Addendum.

(HE-132) 78

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
REGIONAL OFFICE
50 United Nations Plaza
SAN FRANCISCO, CALIFORNIA 94102
Office of Environmental Affairs

OFFICE OF
THE REGIONAL DIRECTOR

RECEIVED
REGIONAL HEARING CLERK
DEC 10 1976
REGION IX

December 1, 1976

Mr. Paul DeFalco, Jr.
Regional Administrator
U.S. Environmental Protection Agency
Region IX
100 California Street
San Francisco, CA. 94111

Dear Mr. DeFalco:

The draft Environmental Impact Statement on the Las Virgenes - Triunfo-Malibu - Topanga Areawide Facilities Plan has been reviewed in accordance with the interim procedures of the Department of Health, Education and Welfare as required by Section 102(2)(c) of the National Environmental Policy Act, Pl 91-190.

Depending on which alternative is chosen, the implementation of this plan will be very growth inducing. This potential is recognized in Chapter 5 which offers little in the way of solutions to the resultant problems.

Table 68, page 7-17, states that interjurisdictional coordination will be required to mitigate the increased demand on public services. The "Responsible Entity" (item 4) appears to list all the potential participants without providing the identification of a lead agency or organization. Which of the many organizations listed will ensure the adequacy of public services- such as health, medical, educational, and social- in terms of quality and accessibility? Who will ensure the adequacy of funding for the required services prior to permitting further development of the residential, industrial, and commercial areas?

Figure 66 identifies possible land use in 1990. The draft Environmental Impact Statement does not provide adequate information on the nature of the industrial development for us to evaluate the potential effects of their pollutants. There is inadequate information on the steps to be taken to be taken to ensure that acceptable levels of pollution are not exceeded. There is also inadequate information or discussion of the ability of the area to fund the needed services and developments. If the voters continue to reject funding proposals through apathy or other means, what alternatives can be pursued?

The draft Environmental Impact Statement contains an abundance of information and may well become a valuable reference document for others who may contemplate an action in the same area. It does not adequately address the problems with potential solutions or mitigating measures. A catalog-type listing of the problems coupled with the listing of potentially involved organizations does not suffice to answer the question "Who is going to do what and when will it be done?".

The Final statement should more realistically examine the economics of the services to be provided; should identify the lead agency or organization for each mitigating measure and, should better address the problem of ensuring that pollution levels will not exceed acceptable standards.

The opportunity to review this statement is appreciated and we will look forward to receipt of the Final Environmental Impact Statement.

Sincerely,

J D Knochenhauer

James D. Knochenhauer
Regional Environmental Officer

cc: CEQ (2)
OEA-HEW-OS

Response To Department of Health, Education and Welfare, Office of Environmental Affairs (#78)

The expansion of the Tapia plant is not a growth inducing project; rather, it is a growth accommodating project which does not enable the servicing of the entire projected population for the LVMWD/TCSD area.

The Tapia Treatment Plan was originally designed to be constructed in phases with a maximum capacity of 8 mgd. The first phase only allowed a 4 mgd operating capacity. This was accomplished with funds from a Clean Water Grant. At this time, the project now being considered is to bring the plant up to its full operating capacity.

Land use policies and problems/responsibilities associated with growth are the responsibilities of the governing bodies within any given area. In the study area these responsibilities are those of the Los Angeles County Planning Commission and ultimately the Los Angeles County Board of Supervisors.

The comments concerning Figure 66, specific mitigation measures for the proposed project, and the economics of the services provided have been noted and will be addressed in the Final EIS. (Page 3-6, 3-16, Chapter 7, and pages 2-134 thru 2-153.)

State of California **The Resources Agency**

(HE-132) 79

Memorandum

REGION IX
COMM CENTER
DEC 17 10 09 AM '76

To : Environmental Protection Agency
Attention: Hearings Officer
Region IX
100 California Street
San Francisco, CA 94111

Date: December 10, 1976

RECEIVED
REGIONAL HEARING CLERK
DEC 17 1976
REGION IX

From : **Department of Conservation**
Division of Mines and Geology
1416 - 9th Street, Sacramento 95814

Subject: Draft EIS/EIR Las Virgenes-Triunfo-Malibu-Topanga Area Wide Facilities Plan.

The review by Division Seismologist, Roger W. Sherburne, (Comment No. 1) and Division Geologist, James K. Kahle, (Comment No.'s 2 and 3) are the following.

1. Pages 135-139.

   Regarding Fig. 45 there are two additional quakes $(5 \leq M < 6)$ during 1900-1931 time span which are probably associated with the Malibu Coast Fault.

   More detailed studies should be done if facilities are proposed for this area. For example, a correlation between intensity and acceleration was not presented. Also, acceleration information was not presented.

2. Section 2.2.6 Oceanography

   The chapter of this section, which is labeled Geology (pgs. 2-79 to 2-81) is inadequate. Although the section on geology, discussed later, clarifies some of the inaccuracies here, this chapter should be clarified or dropped altogether. Specifically, Fig. 30 is inaccurate and outdated since it omits the Malibu Coast fault and some important offshore faults, particularly near the study area. Also, such phrases as "Earthquakes... may cause rupture..." and "highly mineralized ponds" tend to stretch my credibility regarding the competence of the author.

3. Section 2.2.7 Geology and Seismicity (pgs. 2-126 to 2-135)

   This section appears to be adequate, assuming more detailed work will be required for specific sites as recommended. No mention is made in the chapter dealing with Slope Stability of the severe mudflow hazard which is temporarily produced where brush is burned off by fires and intense rains occur before vegetation can be reestablished. This has been a problem in the past and though it may be covered in some other portion of the report, a brief mention here might be appropriate. The fault and epicenter map does not include all the offshore Quarternary faults.

Perry Y. Amimoto

Perry Y. Amimoto
Geologist
CEG 460, RCE 20375

APPROVED:

T. E. Gay Jr.

Thomas E. Gay, Jr.
Acting State Geologist
RG 2634

pya/gt

Response To California Department of Conservation, Division of Mines and Geology (#79)

1. Pages 135-139

Figure 31 has been updated to show instrumentally located epicenters of earthquakes with magnitudes of 4.0 or greater that occurred in the study region in the period 1932 to 1974 (from Friedman et al, 1976). The two events indicated by CDMG have been included in Figure 31 and are as follows (R. W. Sherburne, personal communication, June 13, 1977):

August 4, 1927	Mag. 5.0	34°N	118-1/2°W
August 30, 1930	Mag. 5-1/4	34° N	118.6° W

These two earthquakes may have been associated to the Malibu Coast Fault or to an unnamed offshore fault in Santa Monica Bay. No additional data are available to more accurately define the source of these quakes.

More detailed seismicity studies will be done for faciliites selected for implementation as a result of the Draft Addendum. Appropriate acceleration values for specific facilities and locations will be derived during design investigations for the chosen alternative.

2. Section 2.2.6 Oceanography

The section on Oceanography has been deleted from the Final EIS. Your comments, however, have been noted and will be incorporated in the Draft Addendum.

3. Section 2.2.7 Geology and Seismicity (pgs. 2-126 to 2-135)

Mudflow hazards, soil slips, and debris flows caused by heavy rains are discussed in the last paragraph of the section entitled "Relative Slope Stability Map" on page 2-135.

Offshore Quaternary faults are shown on the updated and revised version of Figure 31, Faults and Epicenters.

(RW)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

COMM CENTER

DEC 1 2 10 PM '76

DATE: NOV 26 1976 (HE-132) 80

SUBJECT: Review of the Draft EIS/EIR for the Las Virgenes-Triunfo-Malibu-Topanga Areawide Facilities Plan

FROM: Kenneth E. Biglane, Director
Division of Oil and Special Materials Control (WH-548)

TO: Regional Administrator
Region IX

Attn: Patricia Port
EIS Coordinator

The comments of the Office of Water Program Operations on the subject EIS/EIR are enclosed. Should any of the issues raised by these comments require clarification, please contact Mr. John M. Hill, Chief, Environmental Evaluation Branch on 245-3054.

Enclosure

EPA Form 1320-6 (Rev. 3-76)

(HE-132) 80

Office of Water Program Operations
Comments on the Draft EIS/EIR for the LAS Virgenes-Triunfo-Malibu-Topanga Areawide Facilities Plan

1. Most of the growth in the study area occurs from immigration, primarily from the City of Los Angeles. Since the study area is within a critical air basin, however, the State Water Resources Control Broad requires that planning of sewerage treatment facilities utilize population projections that assume a zero net-immigration. Despite this, two population projections are presented, one with the zero net-immigration and one with a higher level. This provides a range in the 1995 projections of between 99,837 and 191,316. For the area served by the main plant, the range is between 46,585 and 78,540. All of the impacts from this plant are based on a flow of 8 MGD, which would correspond to the higher projection. In light of the restrictions placed on the planning, the higher projections do not seem to be relevant. The use of the lower projections should also be used in estimating the discharges from the plants.

2. The EIS does not present any of the alternatives as a proposed action. Instead, the decision will be made following an evaluation of the responses to the Draft EIS, particularly with regard to the desired capacities. The EIS does not, however, provide sufficient information for evaluating the alternatives within the framework of an areawide plan. Reference is made to the land use policies affecting specially designated areas, to the 208 plan being developed for the area, and other special State and local districts. The EIS should present the restrictions placed on alternative areawide waste treatment systems by these various policies, plans, and jurisdictional agencies to assist the public in its evaluation.

3. Pepperdine University was pumping its sewage to the Tapia plant under an agreement which was to expire in August of 1976. Alcoa Properties was utilizing a temporary septic tank-leach field system under permission which was to expire in November 1976. Since both of these times will have expired before the final action is taken for an areawide system, the EIs should have addressed the consequences of these expirations in the Draft EIS. The Final EIS should present the treatment and disposal methods that will be used until the areawide system is constructed.

4. The Tapia plant effluent discharges alternatives that call for spray irrigation are all based on potential new users as well as a continuation of the existing users. As the EIS notes, however, this method is not entirely reliable since the users can cancel their purchases at any time. In order to fully evaluate the efficiency of these alternatives, in terms of the quantities of effluent used

for irrigation and the surplus quantities discharged to the receiving waters, the EIS should discuss the use of definite contractual agreements and evidence of intended commitments on the part of the potential users.

5. The EIS should discuss proposed lining methods for the storage reservoirs that will be used to hold effluent which does not meet effluent standards due to plant malfunction. The effects of seepage from this lagoon should also be discussed.

Response To United States Environmental Protection Agency, Division of Oil and Special Materials Control (#80)

1. It is the policy of SWRCB and EPA to provide Clean Water Grant funds for a project on a priority basis. The priority ratings are based on the criticality of the proposed projects. Under current regulations, each sewerage entity is only allowed one grant for expansion of facilities.

   The Tapia Treatment Plant was originally designed to be constructed in phases with a maximum capacity of 8 mgd. The first phase only allowed a 4 mgd operating capacity. This phase was accomplished with funds from a Clean Water Grant. At this time, the project now being considered is to bring the plant up to its full operating capacity.

   The expansion of Tapia is not a growth inducing project; rather, it is a growth accommodating project which does not enable the servicing of the entire projected population for the LVMWD/TCSD area.

   In order to service the entire projected population, it is anticipated that further study will occur during the preparation of the Draft Addendum and an areawide sewage management plan, with various alternatives, will be considered.

   The SWRCB can permit the plant to be expanded to its full grant eligible capacity (8 mgd) and could place flow restrictions on the plant to maintain its operating capacity at an E_O growth rate. This would be in conformance with SWRCB policies for those areas that are currently not expected to comply with the Federal Clean Air Act and attain National Ambient Air Quality standards by 1985.

2. To insure the coordination of planning efforts which will be necessary to mitigate the possible growth accommodating impacts of the Area Wide Facilities Plan, the Las Virgenes Municipal Water District is currently

discussing the mitigation measures (especially those pertaining to air quality) found in the EIS with all agencies, including the L.A. County Planning Commission, the L.A. County Board of Supervisors, and SCAG, who would be involved in implementing the mitigation measures. The LVMWD is requesting the affected agencies and governmental bodies approval of mitigation measures in the EIS along with any other mitigation measures they can suggest. The District will then request from the affected agencies and governmental bodies an approved implementation schedule for the mitigation measures.

3. In June 1977 the South Coast Regional California Coastal Commission granted permit approval for the construction of a 200,000 gpd plant which would serve Pepperdine University and the adjacent Alcoa property. Pending further appeal proceedings at the State Coastal Commission it is anticipated that the plant may be operating at some future time.

4. Issues involving effluent disposal and storage reservoirs will be addressed in the Draft Addendum.

(HE-132) 81

United States Department of the Interior

FISH AND WILDLIFE SERVICE
U.S. FISH & WILDLIFE SERVICE
ECOLOGICAL SERVICES
24000 AVILA ROAD
LAGUNA NIGUEL, CA. 92677

[illegible]
COMM CENTER
JAN 4 10 43 AM '77

January 3, 1977

Mr. Paul De Falco, Jr.
Regional Administrator
Environmental Protection Agency
Region IX
100 California Street
San Francisco, CA 94111

Dear Mr. De Falco:

We have reviewed the Draft EIS for the Areawide Facilities Plan for Los Virgenes, Triunfo, Malibu and Topanga and have transmitted our comments through channels for inclusion in the Departmental letter of response. Those comments related to the adequacy of the statement itself as a full disclosure document and were not intended to convey the Service's position regarding the various alternatives under consideration. The following is our assessment of the impacts of the project alternatives. It is intended as planning aid information for your consideration. It should not be construed as the Departmental position on the project alternatives nor as the official report of the Service as may be required under provisions of the Fish and Wildlife Coordination Act. The alternatives discussed are listed as contained in the draft statement.

> Section 3, Project Alternatives. From the standpoint of fish and wildlife, Alternative 6 is the preferred alternative. This plan of development would substantially enhance fish and wildlife resources in Malibu Creek and Malibu Lagoon. It is expected that increased streamflows to the lagoon could reopen the lagoon mouth increasing tidal circulation thus improving estuarine habitat. At present, littoral drift and wave action have resulted in formation of a berm at the lagoon mouth preventing or greatly impeding tidal intrusion so the lagoon environment suffers from reduced water circulation and stagnation. Increased and persistent flows from Malibu Creek should prevent blockage of the lagoon, permitting greater tidal intrusion and free interchange of aquatic organisms. With increased tidal circulation and freshwater inflow, water quality would substantially improve and thus benefit fish and wildlife habitat.

AMERICAN REVOLUTION BICENTENNIAL 1776-1976

Perennial streamflow in Malibu Creek would also significantly improve fish and wildlife populations and use in Malibu Creek. The value of any aquatic environment is limited by extremes and the present intermittent nature of the water course greatly reduces its habitat value for aquatic organisms. Provisions of year-round flows would make the creek a viable habitat for a wide variety of organisms. Increased flows would also tend to reduce algal growth due to expected increased velocity and cooler water temperatures. Augmented and constant flows should also increase vascular plant growth in and along the creek. These plants would filter streamflow and surface runoff water, and by removing nutrients and pollutants, further enhance water quality.

Alternatives 1 - 5 and 7. None of these offer a potential for opening Malibu Creek to the ocean.

Alternative 3 would waste water resources, violate State water management policy and run counter to the objectives of the FWPCA, "to restore and maintain the chemical, physical and biological integrity of the Nation's waters." Wastewater discharges to the sea runs counter to fulfillment of these objectives and would contribute to pollution of coastal waters.

Alternative 7 would increase water quality in Malibu Creek but would not be sufficient to maintain the ocean opening.

Section 3.4, Malibu Area Treatment and Disposal Alternatives. From a natural resource standpoint, we suggest Alternative 5 be implemented. This alternative would provide additional flows to Malibu Creek and assist in permanent establishment of Malibu estuary. It appears that no other alternative in this section would provide upstream fish and wildlife benefits in addition to increasing flows in Malibu Creek.

We hope our comments prove helpful. If you have any questions, please do not hesitate to contact me or Mr. Ken Holland of my staff.

Sincerely,

James J. McKevitt

James J. McKevitt
Field Supervisor

KGH:gr

cc: ARD-Env., R.O., Portland, OR

Response To U.S. Department of the Interior, Fish and Wildlife Service (#81)

The comments and concerns expressed here address the problem of effluent disposal and, as such, will be addressed in the Draft Addendum.

(HE-132) 83

PA

COMM CENTER
JAN 21 12 06 PM '77

EDMUND G. BROWN JR., *Governor*

STATE OF CALIFORNIA
CALIFORNIA COASTAL ZONE CONSERVATION COMMISSION
SOUTH COAST REGIONAL COMMISSION
666 E. OCEAN BOULEVARD, SUITE 3107
P.O. BOX 1450
LONG BEACH, CALIFORNIA 90801
(213) ~~[illegible]~~ (714) 846-0648
590-5071

18 January 1977

File: SCRC 986

U.S. Environmental
Protection Agency
Region IX
100 California Street
San Francisco, CA 94111

Gentlemen:

The following comments are submitted on the draft EIS/EIR Los Virgenes-Triunfo-Malibu-Topanga Areawide Facilities Plan. These comments are those of the South Coast Regional staff and are not intended to reflect the opinion of the commission.

A substantial effort has been demonstrated by EDAW Inc. to consolidate into one document a data base enabling consideration of social and environmental concerns of each waste-water treatment disposal alternative addressed in the Areawide Facilities Plan proposed by Boyle Engineering.

Because of the controversial nature of this plan, the basic lack of public confidence in the facilities planning process, and in the degree of significance the public believes it has in selecting a final plan to be adopted for implementation, these comments will relate basically to what additional information might be included in the final EIS/EIR to increase public confidence and acceptability of a selected alternative.

The Areawide Facilities Plan should provide for the best practicable waste treatment technology of all point and non-point sources of pollution (usually secondary) before any discharge into receiving waters. This includes the combined disposal of pollutants so they will not migrate to cause water or other environmental pollution and a consideration of advanced waste-water treatment techniques that may be useful to accomplish this goal. Facilities should also be encouraged to provide for the option of waste-water reuse.

It is recommended that the following items be included in the final EIS/EIR of that plan:

A. A statement of water quality objectives for each of the effluent disposal alternatives.

Only water quality objectives and effluent disposal alternatives that can ensure the accomplishment of coastal and other State mandates should be adopted.

Division 20 of the Public Resources Code, the California Coastal Act of 1976, identifies the nearshore waters of Malibu from the Los Angeles City line to the Ventura County line, the Malibu Creek, the Malibu Lagoon and Malibu Watershed as "sensitive coastal resource areas". Water quality objectives and the selection of facility plan components to maintain or enhance all "sensitive coastal resource areas" is of paramount importance. A basic goal of the State for the coastal zone is to "protect, maintain and where feasible, enhance and restore the overall quality of the coastal zone environment and its natural and manmade resources".

Also, "the biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained, and where feasible, restored through, among other means, minimizing adverse effects of waste-water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface waterflow, encouraging waste-water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams".

State agencies are directed in the Act to carry out their duties and responsibilities in conformance with this division.

In addition, effluent discharged into Malibu Creek, if suitably treated, can offer many benefits to the biota and natural resource quality of the area. This has been previously discussed by coastal commission staff, the Fish & Game Department, U.S. Fish and Wildlife, the State Water Resources Control Board, and the Department of Parks and Recreation.

This alternative has received considerable opposition from the residents of Malibu and should only be encouraged if water quality objectives and assurances are such to make this publicly acceptable.

B. Mechanisms included in the facilities plan to control non-point sources of pollution.

Non-point sources of pollution present a potential problem with any development that does not take into consideration the implementation of effective storm water management techniques. This potential is exceptionally high in the steep undeveloped terrains of the Malibu area.

Increases in runoff are often intolerable to riparian woodlands, cause excessive erosion and increases the transport of silt and contaminants to coastal waters. Methods must be included in the facilities plan that regulate the onsite release of runoff by means of temporary storage or retardation of flow; and that detain runoff temporarily and maintain the quality and rate of discharge at the level that existed prior to development.

C. Advanced waste-water treatment techniques that might be applied prior to any creek or ocean discharge or that may increase the reusability of discharged waste-water.

Advanced waste-water treatment techniques should be actively pursued if water quality objectives cannot be accomplished by conventional treatment. This may be important for health considerations, for balanced biotic productivity of Malibu Creek, Lagoon and coastal waters and to increase future options for waste-water reuse.

This information may have been previously included in the Areawide Facilities Plan prepared by Boyle Engineering, but would be helpful if it was included in the final EIS/EIR prepared by EDAW, Inc., because of its greater circulation. If this information has not been previously identified, independent investigation prior to selection of any final plan is encouraged.

Absent in this response is the growth-accommodating aspects of any proposed treatment system. This aspect is difficult to determine within the coastal zone because rarely does one factor ever become an overriding issue hindering development on a large scale. The Commission's review of any treatment work includes a recommendation of the geographical limits of service area within the coastal zone. This is based on the adverse environmental impacts accommodated development would have on the scenic and natural resources of the designated area.

It is recommended that alternatives for treatment systems in the Malibu-Topanga area would be best selected after the final population, employment, housing and land use projections are adopted by the County of Los Angeles, and, in those areas of our jurisdiction, approved by the Coastal Commission through the local coastal implementation program.

Sincerely yours,

SOUTH COAST REGIONAL COMMISSION

M. J. Carpenter
Executive Director

MJC:dn
cc: EDAW, Inc.
Las Virgenes Municipal Water District
California Regional Water Quality Control Board/L.A. Region
Malibu Citizens Planning Committee

Response To California Coastal Zone Conservation Commission, South Coast Regional Commission (#83)

A. Effluent disposal alternatives will be addressed in the Draft Addendum. It should be noted that water quality objectives have been adopted for Basin 4-B by the RWQCB and that any effluent disposal alternative must conform to those objectives. See page 2-49 of Draft EIS, Tables 15 and 16.

B. Emphasis of the current 208 planning being conducted by SCAG is to address non-point sources of pollution. It is anticipated that land use planning efforts will be coordinated in the 208 program.

C. Further effluent treatment process alternatives relevant to effluent disposal will be addressed in the Draft Addendum. Consideration of Alternative treatment methods have been analyzed and were included in the draft Area Wide Facilities Plan.

The revised Los Angeles County Land Use Plan (one of the ongoing studies which would affect growth and development in L. A. County and ultimately the treatment systems required to accommodate the growth) is projected to be finalized by December 1977. Coordination with the Planning Commission and the Coastal Commission will occur as those agencies finalize their plans/programs.

State of California **THE RESOURCES AGENCY**

Memorandum

(HE-132) 9

To : Mr. L. Frank Goodson
Project Coordinator
Resources Agency
1416 Ninth Street
13th Floor
Sacramento, CA 95814

Date: OCT 22 1976

From : **STATE WATER RESOURCES CONTROL BOARD**
DIVISION OF WATER QUALITY

Subject: REVIEW OF DRAFT ENVIRONMENTAL IMPACT STATEMENT/REPORT (EIS/EIR) STATE CLEARINGHOUSE NO. 76092847, FOR LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA AREAWIDE FACILITIES PLAN, PROJECT NO. 76-1140

This office has reviewed the draft EIS/EIR of this project. The Division of Water Quality hereby presents preliminary comments on the draft document.

Review comments will be submitted to EPA and the applicant during the 14 day period subsequent to the November 17th and 18th public hearings on subject report. As a funding agency, the SWRCB reserves the right to make further comment on this report prior to granting an EIS/EIR approval pursuant to the Clean Water Grant Regulations.

Should you have any questions regarding this review, please contact Dennis Anctil at (916) 322-6577.

Larry F. Walker
Division Chief
Manager - Clean Water Grant Program

cc: Rich Williamson, EPA, Region IX
Sazedur Rahman, CRWQCB, Los Angeles Region

State of California **THE RESOURCES AGENCY**

(HE-132) 82

Memorandum

To : Environmental Protection Agency, Region IX
Attention: Hearings Office
100 California Street
San Francisco, California 94111

Date: DEC 27 1976

DEC 28 10 55 AM '76
CENTER

From : **STATE WATER RESOURCES CONTROL BOARD**
DIVISION OF WATER QUALITY

Subject: DRAFT EIS/EIR FOR THE LAS VIRGENES - TRIUNFO - MALIBU - TOPANGA AREAWIDE FACILITIES PLAN
PROJECT NO. 76-1140

This office has reviewed the draft EIS of this project. The Division of Water Quality hereby presents preliminary comments on the draft document.

The November 17th and 18th public hearings on the subject project demonstrated a number of issues or concerns which remain to be satisfactorily resolved. Among those issues which the SWRCB feels must be more specifically addressed in the final EIS or supplementary documents are the following:

1. Sewering projects in Malibu. A specific sewering project for Malibu's "core" area (i.e., Pepperdine University, the Alcoa properties and the immediately adjacent areas) should be analyzed. In deference to prevailing public sentiment and in consideration of the lack of a documented septic tank related public health hazard in Malibu, the SWRCB staff does not have sufficient information at this time to recommend that the remainder of Malibu be sewered.

2. Effluent disposal. The Los Angeles Regional Water Quality Control Board is presently reconsidering its position relative to effluent discharge to Malibu Creek. In the event that discharge requirements are promulgated, the final EIS should contain a detailed environmental analysis of this disposal alternative. Creek discharge of effluent which cannot be cost effectively reclaimed in the study area appears to be an environmentally attractive disposal method.

3. Solids handling facilities at Tapia. In light of the time involved in addressing the aforementioned concerns and others in the final EIS, it would seem that the potential environmental impacts of the solids handling facilities could be more expeditiously addressed in a supplementary EIR. However, it must be emphasized that this recommendation should in no way be construed as compromising or precluding a satisfactory resolution in the final EIS of other concerns discussed above.

As a funding agency the SWRCB reserves the right to make further comments on this report prior to granting an EIS approval pursuant to the Clean Water Grant Regulations.

Should you have any questions regarding this review, please contact Jim Lee at (916) 322-6465 or Dennis Anctil at (916) 322-6577.

Raymond Walsh
for Larry F. Walker
Division Chief
Manager-Clean Water Grant Program

cc: CRWQCB, Los Angeles Region (4)

Response To State Water Resources Control Board, Division Of Water Quality (#82 and #9)

A discussion on sewering projects in Malibu and effluent disposal alternatives will be addressed in the Draft Addendum. It should be noted here that in June 1977 the South Coast Region California Coastal Commission granted permit approval for the construction of a 200,000 gpd plant which would serve Pepperdine University and the adjacent Alcoa property. Pending further appeal proceedings at the State Coastal Commission it is anticipated that the plant may be operating at some future date.

The solids handling systems will be fully addressed in the Final EIS.

EIS/EIR Questionnaire

(HE-132) 14

LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: JAMES D. WRIGLEY

ADDRESS: 2340 STOKES CYN. RD., CALABASAS, CA. 91302

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. [✓ Severe] ___ Moderate ___ Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? ___ Alt. 1 ___ Alt. 2 ___ Alt. 3 ___ Alt. 4 [✓ No Project]
   Other: ___

3. Which solids handling disposal method do you prefer? ___ Sludge Farm ___ Landfill [✓ No Project]
   Other: ___

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? ___ Alt. 1 ___ Alt. 2 ___ Alt. 3 ___ Alt. 4 ___ Alt. 5 ___ Alt. 6 [✓ No Project] Other: ___

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies? LOCAL SEWAGE TREATMENT PLANTS AT THE CENTERS OF HIGH DENSITY DWELLING AREAS. CURRENTLY THE OPEN AREA DWELLING SITES DO NOT REQUIRE SEWERS. SEPTIC TANKS ARE QUITE ADEQUATE.

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

THE IMPACT OF IMPLEMENTATION OF THE AREAWIDE FACILITIES PLAN IS TO PRESSURE PEOPLE LIKE MYSELF TO EVENTUALLY HAVE TO ACCEPT SEWERS SINCE THESE PROJECTS WILL REQUIRE MY TAX DOLLARS TO HELP FINANCE THE PROJECTS.

Response To James D. Wrigley (#14)

Future sewage disposal systems for the study area will be thoroughly addressed in the Draft Addendum.

(HE-132) 17

LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: [illegible] Kay

ADDRESS: 25644 Nebo Dr., Calabasas, 91302

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. [✓ Severe] ______Moderate ______Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? ______Alt. 1 ______Alt. 2 ______Alt. 3 [✓ Alt. 4] ______No Project

   Other: alt. 4 interim project to sale + beneficial use of effluent.

3. Which solids handling disposal method do you prefer?

   ______Sludge Farm ______Landfill ______No Project

   Other: hybrid mode plant w/ focus use for saleable fertilizer

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? ______Alt. 1 ______Alt. 2 ______Alt. 3 ______Alt. 4 ______Alt. 5 ______Alt. 6 ______No Project Other: *

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies? EPA should insist a plan which considers the beneficial uses of effluent. EPA should not fund a program which promotes growth. We are being taxed out of our homes by school & county service taxes,

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

don't do anything until our land use studies in County + State are completed in next 2 years.

NOV 17 1976

I live in Monte Nido, 3/4 mile from Tapia Plant.

MONTE NIDO VALLEY
PROPERTY OWNERS ASSOCIATION
P. O. BOX 54
CALABASAS, CALIFORNIA 91302

Joan Kay
25644 Nebo Dr.
Calabasas, Calif. 91302

Response To Joan Kay (#17)

Growth management is a local prerogative. The LVMWD is a service agency, not a responsive planning organization.

It is possible that mitigation measures will be required in order to minimize the adverse impacts associated with the effects of accommodated growth resulting from increased treatment plant capacity. One such possible mitigation measure for this area, due to the on-going growth management studies, could be a requirement/grant condition restricting flow until such time as growth management plans are completed/implemented.

The revised Los Angeles County Land Use Plan (one of the on-going studies which would affect growth and development in LA County) is projected to be finalized by December 1977.

The majority of funds required for the proposed project will be obtained from the Clean Water Grant program administered by the EPA. A bond issued by Las Virgenes has been approved to cover the local share of the project costs. Per capita costs for additional systems will be addressed in the Draft Addendum.

(HE-132) 18

LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: PATRICIA Hockenbary

ADDRESS: 516 VAN Valsir; Calabasas, Monte Nido

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. [✓ Severe] Moderate Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? Alt. 1 Alt. 2 Alt. 3 Alt. 4 [✓ No Project]

   Other: Re-use of effluent -

3. Which solids handling disposal method do you prefer? Sludge Farm Landfill [✓ No Project]

   Other:

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? Alt. 1 Alt. 2 Alt. 3 Alt. 4 Alt. 5 Alt. 6 [✓ No Project] Other:

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies?

   Alternate methods of on-site disposal has not been sufficiently studied or approved as to make it feasible for use by individuals.

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

I live in the immediate area of the Sapia Plant. For 5 years we have had one problem after another with Sapia Plant. From the odor, to lights, to creek discharge Etc & we do not need or want to avail ourselves of this facility. My septic system is quite adequate & it was installed in 1942. Has been necessary to pump only twice in 5 years. Sewers would only bring more density, more cars, more pollution & on & on.

Response To Patricia Hockenbary (#19)

The policy of EPA and LVMWD has been, and will continue to be, to maximize the use of reclaimed water. Reclaimed water is currently used for spray irrigation on landscaped areas, orchards, open space and golf courses. The Calabasas Reclaimed Water Line is the most recent LVMWD project which will increase the use of reclaimed water. LVMWD encourages the use of reclaimed water whenever possible to reduce the need for potable water.

The odor problem at Tapia was a result of overloading the processing systems. While the plant is designed to accommodate 4 mgd it has been accommodating 4.5 mgd.

Alternative disposal systems, including on-site disposal, will be discussed in the Draft Addendum.

(HE-132) 21

LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: FRANK BASSO

ADDRESS: 6621 WANDERMERE MALIBU CA

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. [✓ Severe] ______Moderate ______Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? ______Alt. 1 ______Alt. 2 ______Alt. 3 [✓ Alt. 4] ______No Project

   Other: ______

3. Which solids handling disposal method do you prefer?

   ______Sludge Farm [✓ Landfill] ______No Project

   Other: ______

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? ______Alt. 1 ______Alt. 2 ______Alt. 3 ______Alt. 4 ______Alt. 5 ______Alt. 6 [✓ No Project] Other: ______

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies?

   LOS VIRGENES Should have BETTER LAND management

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

NOV 17 1976

Response To Frank Basso (#21)

Las Virgenes Municipal Water District is a public service agency that does not have authority to regulate land use or plan for the land uses in its jurisdictional area. This responsibility lies with the Los Angeles County Planning Department, which is currently preparing the Los Angeles County General Plan. This document should contain elements that will directly address land management or land use planning in the Las Virgenes area.

(HE-132)22

LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: [illegible]

ADDRESS: P.O. Box 903 Malibu

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. ✓ Severe ______ Moderate ______ Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? ______ Alt. 1 ______ Alt. 2 ______ Alt. 3 ______ Alt. 4 ______ No Project
   Other: Tertiary Treatment

3. Which solids handling disposal method do you prefer? ______ Sludge Farm ______ Landfill ✓ No Project
   Other: ______

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? ______ Alt. 1 ______ Alt. 2 ______ Alt. 3 ______ Alt. 4 ______ Alt. 5 ______ Alt. 6 ✓ No Project Other: ______

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies? Requirement for tertiary treatment after resolution of S.M. Mountains land use questions. Under no condition should dumping of secondary effluent into Malibu Creek be permitted.

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

NOV [illegible] 1976

Response To V. Soble (#22)

The FWPCA of 1972 (PL-92-500) contains implementating regulations which require that secondary treatment be practiced for all municipal discharges. Stricter requirements on the quality of effluent, such as tertiary treatments, are at times adopted by the RWQCB, after conclusive evidence has been obtained delineating the need for further restrictions. Further restrictions are currently being considered by the SWRCB and the RWQCB.

This alternative plus others will be discussed in the Draft Addendum.

(HE-132) 23

LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: MARISSA M. COUGHLAN

ADDRESS: 25129 W. MALIBU RD., MALIBU, CA 90265

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. [✓ Severe] ______ Moderate ______ Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? ______ Alt. 1 ______ Alt. 2 ______ Alt. 3 [✓ Alt. 4] ______ No Project
   Other: ALT. #4 plus on site disposal - omit dumping into Malibu Creek & lagoon.

3. Which solids handling disposal method do you prefer? ______ Sludge Farm [✓ Landfill] ______ No Project
   Other: ______

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? ______ Alt. 1 ______ Alt. 2 ______ Alt. 3 [✓ Alt. 4] ______ Alt. 5 ______ Alt. 6 ______ No Project
   Other: None are actually satisfactory but this is the least of the evils.

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies? Control development based on on site sewer systems.

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

262

NOV 17 1976

(HE-132) 4

LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: ERROL COUGHLAN

ADDRESS: 25127 W. MALIBU RD MALIBU CA 90265

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. [✓ Severe] ____ Moderate ____ Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? ____ Alt. 1 ____ Alt. 2 ____ Alt. 3 ____ Alt. 4 ____ No Project

   Other: ALT # 4 + ON SITE DISPOSAL - NO DUMPING INTO MALIBU CREEK

3. Which solids handling disposal method do you prefer?

   ____ Sludge Farm [✓ Landfill] ____ No Project

   Other: ____

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? ____ Alt. 1 ____ Alt. 2 ____ Alt. 3 [✓ Alt. 4] ____ Alt. 5 ____ Alt. 6 ____ No Project Other: ____

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies? CONTROL DEVELOPMENT BASED ON ON SITE SEWER SYSTEMS

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

Response To Marissa M. Coughlan (#23) Errol Coughlan (#24)

Effluent disposal alternatives, such as Alternative 4, are currently being studied in more detail and will be addressed in the Draft Addendum.

On-site sewers cannot, of themselves, limit or control development. Control is based upon development or land use objectives and goals adopted by the Los Angeles County Planning Commission, the Los Angeles County Board of Supervisors, and the constraints of the land itself. (Does the soil and geology of the site allow for on-site sewage systems?)

(HE-132) 27

LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: Marilyn Myerly

ADDRESS: 3501 Cross Creek Lane Malibu

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. X Severe _____ Moderate _____ Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? _____ Alt. 1 _____ Alt. 2 _____ Alt. 3 _____ Alt. 4 X No Project

   Other: _____

3. Which solids handling disposal method do you prefer? _____ Sludge Farm _____ Landfill X No Project

   Other: _____

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? _____ Alt. 1 _____ Alt. 2 _____ Alt. 3 _____ Alt. 4 _____ Alt. 5 _____ Alt. 6 X No Project Other: _____

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies? _____

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

my property includes the creek bed of Malibu Creek.

possible Growth inducing sewers would make living in my present home in Malibu extremely difficult.

Response To Marilyn Myerly (27)

Any increase in the flow of Malibu Creek is an issue which will be addressed in the Draft Addendum.

It should also be noted that growth could occur in the Malibu area even without the implementation of the areawide facilities plan.

(HE-132) 37

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LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: Richard M. Powell

ADDRESS: 24554 Malibu Rd. Malibu Ca 90265

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. __x__ Severe ______ Moderate ______ Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? ______ Alt. 1 ______ Alt. 2 ______ Alt. 3 ______ Alt. 4 ______ No Project
   Other: see other side

3. Which solids handling disposal method do you prefer? ______ Sludge Farm ______ Landfill ______ No Project
   Other: see other side

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? ______ Alt. 1 ______ Alt. 2 ______ Alt. 3 ______ Alt. 4 ______ Alt. 5 ______ Alt. 6 ______ No Project Other: see other side

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies? I would like to see some recognition of this basic principle: that when development can be accomplished only through degredation of the environment, then development must WAIT until more advanced technology and/or increased funds are available. "Limited" pollution can no longer be accepted as a solution to any environmental problem.

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

1. As a resident of Malibu, I resent the inclusion of our area in an "area-wide facilities plan" which really only addresses itself to the users of the Tapia Park plant. Our problems could be easily solved with the construction of a small treatment plant in our area which could service the very few miles of beach and business district that need it. The rest of us can get by on septic systems indefinitely without the slightest adverse effect on the environment. If we are included merely to serve ad a dumping ground through Malibu Creek or an ocean outfall the effect on the environment (ours and everyone else's) will be catastrophic.

2,3,4. The draft EIS/EIR seems to me a re-hash of the same tired evasions of the problem which have been with us for the past 15 years and more. Coming from an agency charged with protecting the environment, I find it deeply disappointing. There are no new technologies discussed here; nothing but accomodation to development at the least possible cost -- with future generations left to pick up the bill. I can only advise that you start over from the beginning, but this time with your vision adjusted forward instead of backward. What you have given us just won't do at all.

Response To Richard M. Powell (#37)

1. Refer to Chapter 1, Section 1.2.2 for the explanation of Malibu's inclusion into the AWFP process. The concern that Malibu's problem could easily be solved by constructing a small treatment plant is a viable alternative that will be addressed in the Draft Addendum.

2, 3, 4 The scope and intent of the study was to identify environmental constraints related to sewage treatment and assist in determining the solution to wastewater management using proven available technology, not to develop new unproven technologies.

(HE-132)40

4

Nov 29 12 10 PM '76

LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: Mrs Melinda Rowan

ADDRESS: 25655 Monte Nido Dr. Calabasas 91302, Calif.

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. ✓ Severe ____ Moderate ____ Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? ____ Alt. 1 ____ Alt. 2 ____ Alt. 3 ____ Alt. 4 ✓ No Project

   Other: I believe the plant is presently in a very unacceptable spot.

3. Which solids handling disposal method do you prefer? ____ Sludge Farm ____ Landfill ✓ No Project

   Other: I feel there is no reasonable plan at present!

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? ____ Alt. 1 ____ Alt. 2 ____ Alt. 3 ____ Alt. 4 ____ Alt. 5 ____ Alt. 6 ✓ No Project Other: Septic tanks work quite well + very little care

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies? There can be no air quality with the tapia plant there. I don't care what they say it smells now and it always has - some days are worse, some better. The areas it serves should have the water pumped back and use on their own gardens.

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

Nov 22, 1976

I have lived in this area for 11 years. During this time I have been close to the creek known as Malibu creek or lagoon. I have had friends who have been in Serra Retreat area over the last 20 years. Everyone in that area used to swim in the creek when the water was there in the spring - the children loved it. My horse would gladly drink it. All of this is past, now it is a smelly, alge filled mess. It gets worse every year. My horse now no matter how hot and thirsty after 4 hrs on the trail will not drink that water. Now I am not a scientist, or, a specially trained person in the field of sewage treated water - but I am your average person who knows what clean water smells and looks like and knows how beautiful these mountains can be without the tapia plant, I have heard all the testimony and whitewash from those who say it is "safe"! I know the Adamson family personally and the background of money power + Alcoa + Pepperdine - this can go on forever. I just pray someone at the top has the honesty and nerve and power to say Stop for the good of the land and us all.

Please Mrs. Melinda Rowan

Response To Mrs. Melinda Rowan (#40)

The problems associated with water quality in Malibu Creek as a result of additional creek discharge by LVMWD and the potential for installation of a dual system whereby individuals could purchase/utilize reclaimed wastewater for use as irrigation to landscape are issues which will be addressed in the Draft Addendum.

The odor problem at Tapia was a result of overloading the processing systems. In January 1977 a third digester and an additional blower were installed at the Tapia plant to accommodate the sewage that was being processed above the design capacity. The plant modifications, which relieved the odor problem, were done at the expense of LVMWD.

A plant upset occurred in July 1976 as a result of human error. However, at this point, a new automatic control system has been installed to eliminate the possibility of this occurring again. Additionally, an independent back-up system has been installed.

(HE-132) 41

PA

LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: STEVE + JANICE MILLER Nov 29 12 24 PM '76

ADDRESS: 540 Live OAK CIRCLE DR. CALABASAS 91302

Please give us your views on the issues below: 888-7391

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. X Severe ______Moderate ______Minimal
(See BACK)

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? ______Alt. 1 ______Alt. 2 ______Alt. 3 ______Alt. 4 ______No Project
Other: NONE of THE AlTERNATIVES MEET TODAY'S Needs

3. Which solids handling disposal method do you prefer? ______Sludge Farm ______Landfill ______No Project
Other: None of THE AlTERNATIVES MEET TODAY'S Needs!

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? ______Alt. 1 ______Alt. 2 ______Alt. 3 ______Alt. 4 ______Alt. 5 ______Alt. 6 ______No Project Other: - None -

~~5.~~ What mitigation ~~measures for secondary~~ impacts ~~(air quality,~~ land use, water quality impacts) would you like to see implemented by the local agencies?

'RIMARY' IMPACTS

I would LIKE TO SEE creative use TO RE-CYCLE WATER RATHER THAN DUMP IT. . . CAUSING SEVERE POLUTION.

YOU DON'T SHIT WHERE YOU EAT!

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

Steve Miller
540 Live Oak Circle Drive
Malibu Meadows
Calabasas, CA 91302

[redacted]

Disposal of waste into the nearly area creates a health hazard to all animal life including humans. Not to mention it distroys plant - Insect - and THE ECOLOGICAL Balance of NATURE. THE SMELL DRIVES people AWAY FROM THE AREA — iT MAKES YOU SiCK AT THE THOUGhT AFTER spending $100,000 TO BUY A house AND smell THAT. NOT TO MENTION THAT iF Current disposAL Blunders CONTINUE THE AREA WILL BE TOTALLY Useless TO ANY ResidenTiAL LAND AND Home OWNERS.

Steve Miller

Response To Steve and Janice Miller (#41)

Current technologies for the treatment and reuse of wastewater are studied constantly by the LVMWD in order to effectively reclaim water and sell it to buyers to use for irrigation. Wastewater is only "dumped" or discharged into creeks when the ground is so saturated (due to winter weather or previous application of wastewater) that additional waters would seep into the groundwater table and possibly effect the quality of that water. The SWRCB and the RWQCB have developed strict guidelines for all creek discharge and these must be adhered to at all times.

The odor problem at Tapia was a result of overloading the processing systems. In January 1977 a third digester and an additional blower were installed at the Tapia plant to accommodate the sewage that was being processed above the design capacity. The plant modifications which relieved the odor problem, were done at the expense of LVMWD.

A plant upset occurred in July 1976 as a result of human error. However, at this point, a new automatic control system has been installed to eliminate the possibility of this occurring again. Additionally, an independent back-up system has been installed.

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(HE-132)

LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: Mrs. Joyce T. Parker

ADDRESS: 20743 Big Rock Dr., Malibu, Ca. 90265

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly affect you? Please state the specific nature of impact on the back of this page. [✓ Severe] ______Moderate ______Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? ______Alt. 1 ______Alt. 2 ______Alt. 3 ______Alt. 4 [✓ No Project]
   Other: ______

3. Which solids handling disposal method do you prefer? ______Sludge Farm ______Landfill [✓ No Project]
   Other: ______

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? ______Alt. 1 ______Alt. 2 ______Alt. 3 ______Alt. 4 ______Alt. 5 ______Alt. 6 [✓ No Project] Other: ______

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies? ______

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to

EPA, Region IX.
Attn: Hearings Office
100 California St.
San Francisco, Ca. 94111

Mail by Nov 29th so that it will be received by December 3, 1976

277<

Can't afford the property taxes necessary to pay off bonds.

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Response To Mrs. Joyce T. Parker (#50)

A bond series was approved and issued in 1972 to cover the local share of the project costs. The largest percentage of the project costs are being covered by funds from a Clean Water Grant and from the SWRCB. Additional local funds would only be necessary if additional facilities were to be required at some future date by the LVMWD and federal and state funds were unavailable.

(HE-132) 56

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LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: Mr. and Mrs. William E. Knebel

ADDRESS: 876 Crater Oak Drive, Calabasas, California 91302

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. ✓ Severe ___ Moderate ___ Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? ___ Alt. 1 ___ Alt. 2 ___ Alt. 3 ___ Alt. 4 ✓ No Project

   Other: ___

3. Which solids handling disposal method do you prefer? ___ Sludge Farm ___ Landfill ✓ No Project

   Other: ___

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? ___ Alt. 1 ___ Alt. 2 ___ Alt. 3 ___ Alt. 4 ___ Alt. 5 ___ Alt. 6 ✓ No Project Other: ___

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies? ___

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

1. Expansion of the Tapia Treatment Plant will further degrade the quality of life in the Monte Nido Valley by:

   a. The generation of additional objectionable odors.

   b. Promoting higher population density since the excess capacity will exist to support population growth.

   c. Escalating the water disposal problem which ultimately affects the condition of Malibu Creek.

   d. The negative results of expansion also translates into lower property values for the Monte Nido Valley.

[illegible] E.P.A
REGION IX
COMM. CENTER
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Response to Mr. and Mrs. William E. Knebel (#56)

a. In January 1977, a third digester and an additional blower were installed at the Tapia plant to accommodate the sewage that was being processed above the design capacity. The odor problem was a result of overloading the processing systems. While the plant is designed to accommodate 4 mgd it has been accommodating 4.5 mgd.

A plant upset occurred in July 1976 as a result of human error. However, at this point, a new automatic control system has been installed to eliminate the possibility of this occurring again. Additionally, an independent back-up system has been installed.

b. The Tapia treatment plant was originally designed to be constructed in phases with a maximum capacity of 8 mgd. The first phase only allowed a 4 mgd operating capacity. This phase was accomplished with funds from a Clean Water Grant. At this time, the project now being considered is to bring the plant up to its' full operating capacity.

The expansion of Tapia is not a growth inducing project; rather, it is a growth accommodating project which does not enable the servicing of the entire projected population for the LVMWD/TCSD area.

In order to service the entire projected population, it is anticipated that further study will occur during the preparation of the Draft Addendum and an areawide sewage management plan, with various alternatives, will be considered.

The SWRCB can permit the plant to be expanded to its full design capacity (8 mgd) and could place flow restrictions on the plant to maintain its operating capacity at an E_O growth rate. This would be in conformance with SWRCB policies for those areas that are currently not expected to comply with the Federal Clean Air Act and attain National Ambient Air Quality standards by 1985.

c. The effects of wastewater disposal into Malibu Creek will be discussed in the Draft Addendum.

d. Property values are based on a complex set of interacting variables and, therefore, generalizations are not always appropriate.

It has been observed, however, that utility improvements to residential areas can result in an increase in property values, and it has also been noted that non-conforming uses such as an industrial use in a residential area could result in a decrease in property values. However, due to the present speculative nature of the housing and land market, and with the present expanding population growth in Western Los Angeles County and Eastern Ventura County, it would appear that property values would either remain stable or increase.

(HG-132)57

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LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: Mrs June Glenn

ADDRESS: 27345 Provident Road Agoura, Ca 91301

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. __X__ Severe _____ Moderate _____ Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? _____ Alt. 1 _____ Alt. 2 _____ Alt. 3 _____ Alt. 4 _____ No Project

   Other: Alt 6 with Malibu Lagoon and Mal. Creek designated a Wildlife Preserve

3. Which solids handling disposal method do you prefer?

   _____ Sludge Farm __X__ Landfill __~~X~~__ No Project

   Other: _____

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? _____ Alt. 1 _____ Alt. 2 _____ Alt. 3 _____ Alt. 4 _____ Alt. 5 _____ Alt. 6 _____ No Project Other: Did not study it

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies? A bridge should be built across Malibu Creek at Cross Creek Road so that people living east of the creek could drive to the signal on Pac Coast Hwy They oppose a yr-round stream now because they cross the creek bed constantly.

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

If any alternate except 6 is chosen, my taxes will go up. My rate of $15.2685 is already one of the highest in Calif Also, I might have to pay an additional $75/yr for operating costs on top of a water/sewer bill that runs $60 for 2 months and will go even higher due to the purchase of 3800 acres of State Park land in my Water Improvement District. We are thrifty about water but are trying to keep 70 trees and large shrubs green to improve the air quality

If costs were no object, I'd like to have Alt. 4 (Land Disposal) along the freeway and elsewhere, but I'm worried about possible transmission of diseases. Fundamentally I feel that all the rest of L.A City and County. especially Malibu and Monte Nido should pay to upgrade all of their sewerage to Secondary treatment before we are forced to pay higher costs.

COMM CENTER
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Response To Mrs. June Glenn (#57)

A discussion on the necessity of a bridge across Malibu Creek at Cross Creek Road will be included in the Draft Addendum.

The majority of funds required for the proposed project will be obtained from the Clean Water Grant program administered by the EPA. A bond issued by Las Virgenes has been approved to cover the local share of the project cost. Per capita costs for additional systems will be addressed in the Draft Addendum.

(HE-132) 53

LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

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NAME: LYNN H. WALLACE

ADDRESS: 548 Live Oak Circle Drive, Calabasas 91302

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page __X__ Severe ______ Moderate ______ Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? ______ Alt. 1 ______ Alt. 2 ______ Alt. 3 ______ Alt. 4 ______ No Project
Other: All effluent land disposed only.(spray fields irrigation).

3. Which solids handling disposal method do you prefer?
______ Sludge Farm __X__ Landfill ______ No Project
Other: ______

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? ______ Alt. 1 ______ Alt. 2 __X__ Alt. 3 ______ Alt. 4 ______ Alt. 5 ______ Alt. 6 ______ No Project Other: with each community taking care of their own disposal.

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies? I would like to see local angencies push for alternative three (small treatment plants) within the community they serve. That way each community will be vitally concerned on the secondary impacts (air quality ect.) within that community, because they can smell it and see it from where they live.

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

The area wide facilities plan alternatives, leaves no alternative to creek disposal at sometime or another. It is designed for a huge expansion of the Taipia plant. It has been proven in the past that the L.V.M.W.D. can not handle the problem they have at present - ie. ordor polution, creek polution, visual polution. There is hardly a day goes by without an abnoxious ordor emanation from the Tapia plant. Effluent pipes brake in the creek speving out brownish material. Discharge gates left open in violation of the law. Raw sewage coming from man holes in Tapia Park and running off into the creek. Plant malfunctions and raw sewage dumped into creek.

(HE-132) 54

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REGION IX

LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: BETTY J WALLACE

ADDRESS: 548 Live Oak Circle Drive, Calabasas 91302

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. __X__ Severe ______ Moderate ______ Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? ______ Alt. 1 ______ Alt. 2 ______ Alt. 3 ______ Alt. 4 ______ No Project
   Other: All effluent land disposed only. (spray fields irrigation).

3. Which solids handling disposal method do you prefer?
   ______ Sludge Farm __X__ Landfill ______ No Project
   Other: ______

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? ______ Alt. 1 ______ Alt. 2 __X__ Alt. 3 ______ Alt. 4 ______ Alt. 5 ______ Alt. 6 ______ No Project Other: with each community taking care of their own disposal.

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies? I would like to see local angencies push for alternative three (small treatment plants) within the community they serve. That way each community will be vitally concerned on the secondary impacts (air quality ect.) within that community, because they can smell it and see it from where they live.

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

The area wide facilities plan alternatives, leaves no alternative to creek disposal at sometime or another. It is designed for a huge expansion of the Taipia plant. It has been proven in the past that the L.V.M.W.D. can not handle the problem they have at present - ie. ordor polution, creek polution, visual polution. There is hardly a day goes by without an abnoxious ordor emanation from the Tapia plant. Effluent pipes brake in the creek spewing out brownish material. Discharge gates left open in violation of the law. Raw sewage coming from man holes in Tapia Park and running off into the creek. Plant malfunctions and raw sewage dumped into creek.

(HE-132) 61

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REGION IX

LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: LOREN S. WALLACE

ADDRESS: 548 Live Oak Circle Drive, Calabasas 91302

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. __X__ Severe _____ Moderate _____ Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? _____ Alt. 1 _____ Alt. 2 _____ Alt. 3 _____ Alt. 4 _____ No Project
Other: All effluent land disposed only.(spray fields irrigation).

3. Which solids handling disposal method do you prefer?
_____ Sludge Farm __X__ Landfill _____ No Project
Other: _____

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? _____ Alt. 1 _____ Alt. 2 __X__ Alt. 3 _____ Alt. 4 _____ Alt. 5 _____ Alt. 6 _____ No Project Other: with each community taking care of their own disposal.

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies? I would like to see local angancies push for alternative three (small treatment planas) within the community they serve. That way each community will be vitally concerned on the secondary impacts (air quality ect.) within that community, because they can smell it and see it from where they live.

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

The area wide facilities plan alternatives, leaves no alternative to creek disposal at sometime or another. It is designed for a huge expansion of the Taipia plant. It has been proven in the past that the L.V.M.W.D. can not handle the problem they have at present - ie. ordor polution, creek polution, visual polution. There is hardly a day goes by without an abnoxious ordor emmation from the Tapia plant. Effluent pipes brake in the creek spewing out brownish material. Discharge gates left open in violation of the law. Raw sewage coming from man holes in Tapia Park and running off into the creek. Plant malfunctions and raw sewage dumped into creek.

(HE-132) 62

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LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: GINA LYNN WALLACE

ADDRESS: 548 Live Oak Circle Drive, Calabasas 91302

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. X Severe ____ Moderate ____ Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? ____ Alt. 1 ____ Alt. 2 ____ Alt. 3 ____ Alt. 4 ____ No Project
   Other: All effluent land disposed only.(spray fields irrigation).

3. Which solids handling disposal method do you prefer?
   ____ Sludge Farm X Landfill ____ No Project
   Other: ____

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? ____ Alt. 1 ____ Alt. 2 X Alt. 3 ____ Alt. 4 ____ Alt. 5 ____ Alt. 6 ____ No Project Other: with each community taking care of their own disposal.

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies? I would like to see local angancies push for alternative three (small treatment plants) within the community they serve. That way each community will be vitally concerned on the secondary impacts (air quality ect.) within that community, because they can smell it and see it from where they live.

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

The area wide facilities plan alternatives, leaves no alternative to creek disposal at sometime or another. It is designed for a huge expansion of the Taipia plant. It has been proven in the past that the L.V.M.W.D. can not handle the problem they have at present - ie. order polution, creek polution, visual polution. There is hardly a day goes by without an abnoxious order emmation from the Tapia plant. Effluent pipes brake in the creek spewing out brownish material. Discharge gates left open in violation of the law. Raw sewage coming from man holes in Tapia Park and running off into the creek. Plant malfunctions and raw sewage dumped into creek.

Response To Lynn H. Wallace, Betty J. Wallace, Loren S. Wallace, Gina Lynn Wallace (#53, 54 61, 62)

In January 1977 a third digester and an additional blower were installed at the Tapia plant to accommodate the sewage that was being processed above the design capacity. The odor problem was a result of overloading the processing systems. While the plant is designed to accommodate 4 mgd it has been accommodating 4.5 mgd.

A plant upset occurred in July 1976 as a result of human error. However, at this point, a new automatic control system has been installed to eliminate the possibility of this occurring again. Additionally, an independent back-up system has been installed.

296<

(HE-132) 68

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LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: Mr. & Mrs. Dale Ramsey

ADDRESS: [illegible] Crater [illegible] Calabasas Ca. [illegible]

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. ✓ Severe ___ Moderate ___ Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? ___ Alt. 1 ___ Alt. 2 ___ Alt. 3 ___ Alt. 4 ✓ No Project

   Other: ___

3. Which solids handling disposal method do you prefer?

   ___ Sludge Farm ___ Landfill ✓ No Project

   Other: ___

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? ___ Alt. 1 ___ Alt. 2 ___ Alt. 3 ___ Alt. 4 ___ Alt. 5 ___ Alt. 6 ✓ No Project Other: ___

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies? We live in a rural area, do not have or need sewers, and yet the developers tracts out near the freeway have sent all thier sewege problems out to us, (Monte Nido Area) thru LVWDs' bad planning.

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

The stink from the Tapia plant (which should not even be out here) is tremendous, and the damage to our natural creeks

and when those people complained of smell, they close it down and sent it to Tapia and the people in our area to smell.

Response To Mr. and Mrs. Dale Ranney (#68)

The odor problem at Tapia was a result of overloading the processing systems. In January 1977 a third digester and an additional blower were installed at the Tapia plant to accommodate the sewage that was being processed above the design capacity. The plant modifications, which relieved the odor problem, were done at the expense of LVMWD.

(HE-132) 75

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LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: MARIE D. EVERETT

ADDRESS: 858 CRATER OAK DRIVE CALABASAS 91302

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. X Severe ____ Moderate ____ Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? ____ Alt. 1 ____ Alt. 2 ____ Alt. 3 ____ Alt. 4 X No Project
Other: ____

3. Which solids handling disposal method do you prefer? ____ Sludge Farm ____ Landfill X No Project
Other: ____

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? ____ Alt. 1 ____ Alt. 2 ____ Alt. 3 ____ Alt. 4 ____ Alt. 5 ____ Alt. 6 X No Project Other: ____

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies? I don't know - the sewage treatment problem is so serious that I can't think of anything else. Air quality is certainly affected - it smells!

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

Environmental Protection Agency, Region IX
[illegible] Hearing [illegible] 137
[illegible] Craig St.
[illegible] 94111

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COMM CENTER

The Tapia plant already has such a terrible odor that I dread what further expansion might bring. The odor is quite nauseating. I often see people - especially young Children - trying to enjoy Tapia Park; I think it is a terrible situation when such a lovely park is made unbearable for the public to use. There must be some other way to resolve this problem - please help us!

Response To Marie D. Everett (#75)

The odor problem at Tapia was a result of overloading the processing systems. In January 1977 a third digester and an additional blower were installed at the Tapia plant to accommodate the sewage that was being processed above the design capacity. The plant modifications, which relieved the odor problem, were done at the expense of LVMWD.

(HE-132) 76

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DEC 8 1976

ENVIRONMENTAL PROTECTION AGENCY
REGION IX
HEARING CLERK

LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: PA CaTALdo

ADDRESS: Po Box 695 Malibu

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. X Severe ____ Moderate ____ Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? ____ Alt. 1 ____ Alt. 2 ____ Alt. 3 ____ Alt. 4 ____ No Project
   Other: TERtiary

3. Which solids handling disposal method do you prefer?
   ____ Sludge Farm ____ Landfill ____ No Project
   Other: TERtiARY

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? ____ Alt. 1 ____ Alt. 2 ____ Alt. 3 ____ Alt. 4 ____ Alt. 5 ____ Alt. 6 ____ No Project Other: TERtiARY

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies?
   Major Sewer Systems
   means excessive Urbanization
   Destruction of Water Quality,
   Ocean Quality and, Secondarily, Air quality

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

You use 12-YR old warmed-over data,
Present no Modern alternatives. a WASTE of $ ½ Million;" for stu

Response To P. A. Cataldo (#76)

The FWPCA of 1972 (PF-92-500) contains implementing regulations which require that secondary treatment be practiced for all municipal discharges. Stricter requirements on the quality of effluent, such as tertiary treatments, are at times adopted by the RWQCB, after conclusive evidence has been obtained delineating the need for further restrictions. Further restrictions are currently being considered by the SWRCB and the RWQCB.

Data used in the EIS/EIR was, at the time of production, te best available data.

Alternatives to the AWFP will be discussed in the Draft Addendum.

Comments Requiring
No Response

Receipt of the preceeding 15 comments are Acknowledged and require no response.

#1	Federal Power Commission, Advisor on Environmental Quality
#7	Federal Power Commission, Regional Engineer
#3	U. S. Department of Transportation
#13	Alderman, Swift & Lewis
#25	Nancy Breslin
#29	Hans A. Schroeder
#30	Department of the Army, Los Angeles District, Corps of Engineers
#38	James S. and Helen C. Funkhouser
#39	U.S. Department of Agriculture, Soil Conservation Service
#46	Department of Transportation, Federal Aviation Administration
#49	Gerri Pedesky
#55	Vance Moran
#60	Dr. and Mrs. John Kalivas
#74	Harold V. Helsley
#70	John Berretta

(HE-132) 1

[illegible] 1976

September 29, 1976

Environmental Protection Agency
Attention: Hearings Office
Region IX
100 California Street
San Francisco, California 94111

Gentlemen:

I am replying to your request for comments on the Draft Environmental Impact Statement for Las Virgenes--Triunfo Malibu--Topanga Area Wide Facilities Plan.

Our review concentrated basically on those areas of the electric power and natural gas industries for which the Federal Power Commission has jurisdiction by law, or where the staff has special expertise in evaluating environmental impacts involved with the proposed action. It does not appear that there would be any significant impacts in our areas of concern nor serious conflicts with Federal Power Commission responsibilities should this action be undertaken.

Thank you for the opportunity to review this statment.

Sincerely,

Jack M. Heinemann
Acting Advisor on
Environmental Quality

(HE-132) 3

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION NINE
Two Embarcadero Center, Suite 530
San Francisco, California 94111

ARIZONA
CALIFORNIA
NEVADA
HAWAII
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IN REPLY REFER TO
9ED

October 6, 1976

Mr. Paul De Falco, Jr.
Regional Administrator
Environmental Protection Agency
100 California Street
San Francisco, California 94111

Dear Mr. De Falco:

We have reviewed the Draft Environmental Impact Statement for the Las Virgenes/Triunfo/Malibu/Topanga Areawide Facilities Plan in Los Angeles County, California, and have no specific comments to offer. The discussion concerning secondary impacts as related to transportation quite properly addresses impacts and possible mitigating measures.

We appreciate this opportunity to review the subject Draft Statement.

Sincerely yours,

F. E. Hawley
Regional Administrator

(HE-132) 7

FEDERAL POWER COMMISSION
REGIONAL OFFICE
U. S. CUSTOM HOUSE
SAN FRANCISCO, CA. 94111

October 8, 1976

REGIONAL HEARING CLERK
OCT 1 1976
REGION IX

Mr. Paul DeFalco, Jr.
Regional Administrator
U. S. Environmental Protection Agency
100 California Street
San Francisco, California 94111

Dear Mr. DeFalco:

We have reviewed your draft environmental statement/environmental impact report for the Los Virgenes-Triumfo-Malibu-Topanga Areawide Facilities Plan.

As discussed in the report, the purpose of the Areawide Facilities Plan is to assess a regional wastewater treatment and disposal system to eliminate the existing water quality problems in the various systems, and prevent future problems.

This office's principal concern with improvements affecting land and water resources is the possible effect of such improvements on the construction and operation of bulk electric power facilities, including potential hydroelectric developments, and on natural gas pipelines. Since the above-noted project apparently would pose no major obstacle to the construction and operation of such facilities, we have no comments on the proposed project.

Sincerely yours,

George R. Bell

GEORGE R. BELL
Acting Regional Engineer

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(HE-132) 13

REGION IX
COMM CENTER
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CHAIRMAN OF THE BOARD
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SECRETARY-TREASURER

ALDERMAN, SWIFT & LEWIS CONSULTING ENGINEERS

November 2, 1976

U.S.E.P.A.
Region IX
100 California Street
San Francisco, California 94111

Attention: Mr. Paul DeFalco,Jr.
Regional Administrator

Subject: Public Hearings - Draft EIS

Gentlemen:

Please include us on your mailing list for the EIS hearings on the Las Virgenes-Triunfo-Malibu-Topanga Areawide Facilities Plan.

We would also appreciate notification on all other Ventura County hearings regarding PL 92-500, if this is possible.

Thank you for your consideration.

Very truly yours,

R. N. Lamar

Roy N. Lamar

RNL:cs

11/8/76 [illegible]

721 FAIR OAKS AVENUE, SOUTH PASADENA, CALIFORNIA 91030 • (213) 799-7121 • 682-2178
2921 SOUTH MAIN STREET, SUITE 'C,' SANTA ANA, CALIFORNIA 92707 • (714) 979-1761

(HE-132)25

LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: Nancy Breslin

ADDRESS: 6543 Zuma View Malibu, Ca

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. [✓ Severe] ____Moderate ____Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? ____Alt. 1 ____Alt. 2 ____Alt. 3 ____Alt. 4 [✓ No Project]

   Other:

3. Which solids handling disposal method do you prefer?

   ____Sludge Farm ____Landfill [✓ No Project]

   Other:

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? ____Alt. 1 ____Alt. 2 ____Alt. 3 ____Alt. 4 ____Alt. 5 ____Alt. 6 [✓ No Project] Other:

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies?

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

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(HE-132) 29

LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: HANS A. SCHROEDER

ADDRESS: 22333 PACIFIC COAST HWY MALIBU, CALIFORNIA

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. __X__ Severe _____ Moderate _____ Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? _____ Alt. 1 _____ Alt. 2 _____ Alt. 3 __X__ Alt. 4 _____ No Project

   Other: ____________________

3. Which solids handling disposal method do you prefer?

   __X__ Sludge Farm _____ Landfill _____ No Project

   Other: ____________________

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? _____ Alt. 1 _____ Alt. 2 _____ Alt. 3 __X__ Alt. 4 _____ Alt. 5 _____ Alt. 6

   _____ No Project Other: ____________________

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies? ____________________

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

(HE-132) 30

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
P. O. BOX 2711
LOS ANGELES, CALIFORNIA 90053

SPLED-E

9 November 1976

Mr. Paul De Falco, Jr.
Regional Administrator
Environmental Protection Agency
Region IX
100 California Street
San Francisco, California 94111

Dear Mr. De Falco:

This is in response to your request for review and comment on the Draft Environmental Impact Statement for the Las Virgenes-Triunfo-Malibu-Topanga Area Wide Facilities Plan, Los Angeles County, California.

The proposed plan does not conflict with existing or authorized plans of the Corps of Engineers. We have no comments concerning environmental impacts of the proposed plan.

We suggest that Mr. Charles M. Holt, Chief, Navigation Branch, Construction-Operations Division, telephone (213) 688-4933, be contacted regarding requirements for filing a permit application should navigable waters of the United States be involved.

Thank you for the opportunity to review and comment on this draft statement.

Sincerely yours,

for TAICHI L. NISHIHARA
Chief, Engineering Division

(HE-132) 38

LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: James S + Helen Co. Funkhouser

ADDRESS: 30587 Mulholland Hwy P.O. 99 - Agoura

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. ____ Severe ____ Moderate _X_ Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? ____ Alt. 1 ____ Alt. 2 ____ Alt. 3 _X_ Alt. 4 ____ No Project

   Other: ____

3. Which solids handling disposal method do you prefer?

   _X_ Sludge Farm ____ Landfill ____ No Project

   Other: ____

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? ____ Alt. 1 ____ Alt. 2 ____ Alt. 3 ____ Alt. 4 _3.3 ~~3.5~~_ Alt. 5 ____ Alt. 6 ____ No Project Other: ____

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies?

   Do not think any other measures necessary.

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

W2 (HE-132) 39

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
2828 Chiles Road, Davis, California 95616

COMM CENTER
Nov 4 2 15 PM '76

November 1, 1976

RECEIVED
REGIONAL HEARING CLERK
NOV 30 1976
REGION IX

Mr. Paul DeFalco, Jr.
Environmental Protection Agency
100 California Street
San Francisco, CA 94111

Dear Mr. DeFalco:

We acknowledge receipt of the draft environmental impact report on Las Virgenes-Triunto-Malibu-Topanga Areawide Facilities Plan that was addressed to the Soil Conservation Service for review and comment.

The statement has been reviewed by the Soil Conservation Service staff and we find no controversial items in the statement within the realm of the Service's expertise and responsibilities. There is no apparent conflict with any Soil Conservation Service on-going or planned program or project.

We appreciate the opportunity to review and comment on this proposed project.

Sincerely,

For G. H. STONE
State Conservationist

cc: R. M. Davis, Administrator, USDA, Washington, D.C. 20250
Fowden G. Maxwell, Coordinator of Environmental Quality Activities, Office of the Secretary, USDA, Washington, D.C. 20250
Council on Environmental Quality, 722 Jackson Place, N.W., Washington, D.C. 20006 - Attn: General Counsel (5 copies)
Kenneth L Williams, Director, WTSC, SCS, Portland, Oregon
Don Miller, USDA, SCS, Riverside, California

(HE-132) 46

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

WESTERN REGION
P. O. BOX 92007, WORLDWAY POSTAL CENTER
LOS ANGELES, CALIFORNIA 90009

VED
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Nov 30 11 50 AM '76

November 29, 1976

Mr. Paul DeFalco, Jr.
Regional Administrator
Environmental Protection Agency
Region IX
100 California Street
San Francisco, California 94111

Dear Mr. DeFalco:

We have completed a review of your Draft Environmental Impact Statement/ Environmental Impact Report for the Las Virgenes/Triunfo/Malibu/Topanaga Areawide Facilities Plan. Our findings indicate this proposal will not present any problem from an environmental viewpoint to any existing or presently planned FAA facilities.

We appreciate the courtesy extended in bringing this matter to our attention.

Sincerely,

W. Bruce Chambers

W. BRUCE CHAMBERS
Regional Planning Officer

DEC 1 1976 (HE-132) 49

REGION IX

LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: Pedesky, Gerri

ADDRESS: 4230 Kingfisher Rd, Calabasas 91302

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly affect you? Please state the specific nature of impact on the back of this page. _____ Severe _____ Moderate __✓__ Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? _____ Alt. 1 __✓__ Alt. 2 _____ Alt. 3 _____ Alt. 4 _____ No Project

   Other: ____________________

3. Which solids handling disposal method do you prefer?

   __✓__ Sludge Farm _____ Landfill _____ No Project

   Other: ____________________

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? _____ Alt. 1 _____ Alt. 2 _____ Alt. 3 _____ Alt. 4 _____ Alt. 5 __✓__ Alt. 6 _____ No Project Other: ____________________

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies? ____________________

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to

EPA, Region IX.
Attn: Hearings Office
100 California St.
San Francisco, Ca. 94111

Mail by Nov 29th so that it will be received by December 3, 1976

31

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LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: Vance Moran

ADDRESS: 28914 Roadside Dr Agoura 91301

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly affect you? Please state the specific nature of impact on the back of this page. _____ Severe _____ Moderate _____ Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? _____ Alt. 1 _____ Alt. 2 _____ Alt. 3 _____ Alt. 4 _____ No Project

   Other: Alt. 6 Malibu Creek

3. Which solids handling disposal method do you prefer?

   _____ Sludge Farm X Landfill _____ No Project

   Other: or Sale if marketable

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? _____ Alt. 1 _____ Alt. 2 _____ Alt. 3 _____ Alt. 4 _____ Alt. 5 X Alt. 6 _____ No Project Other: _____

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies?

   Their has been an unreasonable amount of objections by environmentals concerning Not growth policy that housing shortages are becoming Catastrophic. Allow Agoura to build homes by taking care of disposal of sewage.

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to

EPA, Region IX.
Attn: Hearings Office
100 California St.
San Francisco, Ca. 94111

Mail by Nov 29th so that it will be received by December 3, 1976

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LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: Dr. and Mrs. John Kalivas

ADDRESS: 25610 Maynard Dr., Calabasas, CA 91302

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. [✓ Severe] ______ Moderate ______ Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? ______ Alt. 1 ______ Alt. 2 ______ Alt. 3 ______ Alt. 4 [✓ No Project]

   Other: ______

3. Which solids handling disposal method do you prefer? ______ Sludge Farm ______ Landfill [✓ No Project]

   Other: ______

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? ______ Alt. 1 ______ Alt. 2 ______ Alt. 3 ______ Alt. 4 ______ Alt. 5 ______ Alt. 6 [✓ No Project] Other: ______

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies?

   We would like to see the [redacted] federal governmental agencies become more active in formulating and policing regulations which would maintain + protect our environment. We need your help — the quality of our life is slipping away.

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

Sights, sounds, + smells ~~[illegible]~~ compromise my and my family's lives. The community needs your help to stop these proposals. Please help.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX, HEARING OFFICE
[illegible] California Street
San Francisco, California 94111

[illegible]

[illegible] CENTER
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REGION IX

November 29, 1976

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX, HEARING OFFICE
100 California Street
San Francisco, California 94111

RE: Las Virgenes - Triunfo - Malibu - Topanga
Area Wide Facilities Plan
Hearing 132, November 18, 1976
Agoura High School
18545 West Driver Avenue
Agoura, California

Gentle Persons:

In response to the invitation extended by Mr. M. S. Walker, E.P.A. Hearing Officer, I file herein my suggestions with respect to the referenced PLAN.

My name is John Berretta; my family and I live at 28620 Conejo View Drive, Agoura, California 91301; our telephone is (213) 889-4133; during the last eleven years, I have been associated with the Harry L. Nourse Audit Company, Santa Monica California, as a professional accountant and engaged in business and tax counseling.

I have perused your DRAFT, E.I.S./E.I.R., comprised, exclusive of binders and divider pages, of -

Figures	91 Units
Tables	68 Units
Other Subject Matter	512 Pages

and was very much interested in the presentations of the speakers at the meeting.

The concentration of populations that generate the waste water in the "Las Virgenes-Triunfo-Malibu-Topanga Area" is shown in TABLE 56, Page 2-229 of the EIS/EIR REPORT. Ninety-three (93%) percent of the "Area" population and ninety-four (94%) percent of the waste water generated belongs to the TAPIA WATER RECLAMATION DISTRICT FACILITY, one of ten selected areas in the PLAN.

39,904 persons are reported as producing 4,451,000 gallons of waste water per day or a per diem average per individual of 114 gallons; of these, 2,904 live outside the TAPIA district and generate daily 251,008 G.P.D. By 1990, the population of the "Area" may double; if so, and should the average per capita generation of waste water be held at 114 gallons per day, the total daily generation of waste water may be projected at 8,902,000 gallons.

Assuming a relatively uniform content of solids, then the volume of liquid sludge containing three and one half (3.5%) percent of solids to be disposed of would correspondingly increase from a daily volume of 51,400 gallons to 102,800 gallons of nauseous sludge, containing many types of pathogens and parasites and bearing various leachable metals hazardous to the healths of homo sapiens, fauna and flora. The degradation and desecration of archeological/paleontological sites may also occur in the course of the construction projects.

For the disposal of the hazardous effluents, the possibilities listed in the PLAN include:

1. pumping into Calabasas Creek
2. pumping into Conejo Creek
3. pumping into the Pacific Ocean
4. pumping partially into Malibu Creek
5. spraying on condemned acreages.

As to the disposal of solid wastes, the possibilities listed include:

1. trucking to the Calabasas Landfill
2. pump to a sludge farm.

In Section 10 of the PLAN statements are made as to IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES, which may be fairly referenced and paraphrased as follows:

1. Land sites required for the "AREA" WIDE FACILITIES PLAN are presented as in the aggregate range of 2,047 to 2,384 acres. At $4,000 per acre we have for consideration a minimum investment of $8,188,000 in unimproved land.
2. Water resources are necessarily treated in terms of qualifications rather than quantifications; nevertheless, if the population doubles, the waste water which would be generated amounts annually to three billion, two hundred forty-nine million, two hundred thirty thousand (3,249,230,000) gallons. From this volume of waste water, the resume of liquid sludges carrying three and one-half (3½%) percent of solids may be projected on an annual basis to thirty-seven million, five hundred twenty-two thousand (37,522,000) gallons.
3. The monetary cost estimates vary with the chosen combinations of the "improvement" possibilities outlined in this PLAN, but are stated as follows:

   a. Planning, design and capital costs of facilities not including land:

i	Minimum	$ 9,562,000
ii	Maximum	$16,315,000

   b. Annual operating costs:

i	Minimum	$1,616,000
ii	Maximum	$2,470,000

In the course of my professional practice I have become acquainted with a patent controlled "mechanical-chemical-thermal" process for the "On Site" conversion to ecologically acceptable materials of liquid sludges bearing three (3%) percent or more of solids.

It is my understanding that liquid sludge is pumped into tanks; a chemical treatment deodorizes, disinfects and settles the suspended solids to the bottoms of the tanks; the cleared liquid is transferred to a finishing tank where the ph is normalized and the potability of the water achieved through confined area ozone treatment; the finished product water is compatible with any use requiring potable pure water.

The solids are cyclically pumped from tank bottoms and conveyed through closed conduits to processor units with specified suitable output capacities of ten tons to one hundred tons per operating hour. Deodorization of the solids is maintained; chemical-thermal-mechanical treatment assures complete destruction of pathogens and parasites; concurrently, alterations in chemical compositions result in compounds of hazardous metals which are insoluble and unleachable below temperatures of four hundred degrees 400° centigrade; most of the liquids are either bound chemically or are vaporized and discharged into an unleakable condensation chamber; sludge solids which have been deordized, disinfected and with hazardous metals locked into nonsoluble compounds, exit as a dry earth-like material which is compactible, practically non-permeable and not subject to expansion nor contraction as a result of temperature variations.

It is my understanding that such a plant may be situated on a three acre site and is priced so that the savings, after charging both amortization of the plant investment over fifteen years at 7% p.a., and the maintenance and operating costs, amount to an annual percentage of the original investment, ranging from 35% to 75%, depending upon volume processed.

Inquiry has disclosed that the capital cost of a plant to handle, daily, up to 150,000 gallons of liquid sludge carrying 3% or more solids is approximately $500,000.

Even should the population of our AREA double by 1990, an increase from 8,000,000 g.p.d., to 10,000,000 g.p.d., in the capacity of the TAPIA facility, and the tank trucking from the nine (9) satellite areas, clarification pools of their "3½% sludge" to the TAPIA sludge treatment plant, equipped with the facilities for the application of this MECHANICAL-CHEMICAL-THERMAL process would, in my opinion, save the taxpayers of this "AREA" millions of dollars of original investment and hundreds of thousands of dollars in annual operating expenses; may I respectfully suggest that you give consideration to the Manchak MECHANICAL-CHEMICAL-THERMAL process which is available through the Nevada Corporation, MANCHAK, COLORADO, INC., of 502 East John Street, Carson City, Nevada 89701.

Very truly yours,

John Berretta, Resident

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LAS VIRGENES-TRIUNFO-MALIBU-TOPANGA DRAFT EIS/EIR QUESTIONNAIRE

NAME: Harold V. Helsley - Cold Creek Property Owners Assoc

ADDRESS: 1970 McKain Road Calabasas CA 91302

Please give us your views on the issues below:

1. How will implementation of the Areawide Facilities Plan directly effect you? Please state the specific nature of impact on the back of this page. ✓ Severe ✓ Moderate _____ Minimal

2. What effluent disposal alternative for Tapia WRF do you find best solves the problem? _____ Alt. 1 _____ Alt. 2 _____ Alt. 3 ✓ Alt. 4 _____ No Project

   Other: _____

3. Which solids handling disposal method do you prefer?

   ✓ Sludge Farm _____ Landfill _____ No Project

   Other: _____

4. Which treatment system alternative do you feel best solves the problem in the Malibu/Topanga area? _____ Alt. 1 _____ Alt. 2 _____ Alt. 3 _____ Alt. 4 _____ Alt. 5 ✓ Alt. 6 _____ No Project Other: Construct another plant up near westlake/Oak Park area to save cost of pumping effl. back to that area for use — Export NE eff. & solids to Los Angeles.

5. What mitigation measures for secondary impacts (air quality, land use, water quality impacts) would you like to see implemented by the local agencies? 1. – get rid of "musty smell" in Tapia area! (Certainly makes the State Park not as enjoyable to hike & picnic)
   2. – No large land cuts visible from Mulholland Scenic Corridor
   3. – Protection of native oaks 4. Respect Early Indian burialgrounds

After you have completed the questionnaire, please hand it in at the Public Hearing registration desk or mail it to EPA, Region IX.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
100 CALIFORNIA STREET
SAN FRANCISCO, CALIFORNIA 94111

MAY 13 1977

To All Interested Agencies, Public Groups, and Concerned Individuals:

This announcement is being circulated to inform the public of the Environmental Protection Agency's plan for completing the Federal Environmental Impact Statement/Environmental Impact Report (EIS/EIR) on the Las Virgenes Municipal Water District's Areawide Facilities Plan.

In September, 1976, EPA in cooperation with the Las Virgenes Municipal Water District, published a draft EIR/EIS on the Wastewater Management Program for the Las Virgenes/Triunfo/Topanga/ Malibu Area. This document was prepared under the requirements of the National Environmental Policy Act of 1969 and the California Environmental Quality Act of 1970. Comments on the draft EIR/EIS were solicited and public hearings were held in Malibu and Agoura on November 17 and 18, 1976. The public comment period closed December 3, 1976.

EPA's review of the public hearing testimony found that although certain elements of the Las Virgenes Wastewater Plan could be approved for Federal funding in the near future, other elements would require additional investigation and public review before grant approval. Consequently, we have worked with the California State Water Resources Control Board and local representatives to identify the acceptable strategy before proceeding. The agreed upon strategy includes the following elements:

1. A final EIS/EIR will be prepared for the Solids Handling Project at the Tapia Water Reclamation facility and for the Calabasas Reclamation Line. This document is scheduled for release in August, 1977.

2. A draft addendum EIR/EIS will be prepared to further analyze the issues of,

   A. Effluent disposal of the Tapia facility,

   B. Future wastewater management options for Las Virgenes and Triunfo,and

C. The proposed projects for Malibu and Topanga areas. This draft addendum EIR/EIS is scheduled for release in the fall of 1977. A public review and comment period on the addendum will occur at that time.

Our decision to prepare a separate EIR/EIS on the Solids Handling and Calabasas Reclamation Line Projects was necessitated by the urgent need to solve several immediate problems at the Tapia Water Reclamation Facility. First, the inadequate Solids Handling capability has resulted in odor problems at the facility. A breakdown of any air blower equipment will create a major odor problem in the area. Secondly, the present effluent disposal facilities are being over-taxed by the present wastewater flows at the Tapia Plant. The reclamation line would carry treated wastewater to the Calabasas Area for reuse on a golf course and other lands as they are made available. Public comments received on the draft EIR/EIS indicated a wide support for reclamation, and this project will help satisfy that desire.

Because the construction of the Solids Handling and Reclamation Line projects will allow more flows to the Tapia Water Reclamation Plant, the final EIR/EIS will address the secondary impacts associated with the increased flows expected at the plant. These secondary impacts will be those caused by the increased air pollutant emissions from the population to be served by the facility. Prior to publishing the final EIR/EIS, EPA will evalaute the commitments received from local agencies to mitigate project impacts to determine if adequate mitigation has been provided. Release of the final EIS/EIR will not occur until adequate mitigation is assured.

We request that you bring this notice to the attention of all persons who would be interested in these matters. All those persons who received a copy of the draft EIR/EIS will automatically receive a copy of all future documents related to the ongoing EIS/EIR process for this project.

Sincerely,

Paul De Falco

Paul De Falco, Jr.
Regional Administrator

Appendix B

AREA-WIDE FACILITIES PLAN EIS CIRCULATION LIST

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Department of the Interior Assistant Secretary, Program Policy Attn: Office of Environment Project Review Washington, D.C. 20240	1
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Regional Forester, Douglas R. Leisz
Land Use Planning Office
U. S. Forest Service
630 Sansome Street, Room 720 2
San Francisco, California 94111

Western Technical Services Center
Department of Agriculture
Attn: Kenneth William, Director
511 NW Broadway, Room 209 1
Portland, Oregon 97209

U. S. Department of Agriculture
Office of the Secretary
Environmental Quality Activities
Room 307A
14th and Independence Avenue, SW 1
Washington, D. C. 20250

State Conservationist, G. H. Stone, Jr.
Soil Conservation Service
2828 Chiles Road 2
Davis, California 95616

U. S. Department of Agriculture
Attn: Activities Coordination 1
Washington, D. C. 90250

Department of the Army

U. S. Army Corps of Engineers
Environmental Resources Branch
South Pacific Division
630 Sansome Street 3
San Francisco, California 94111

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U. S. Army Corps of Engineers
Environmental Branch
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Department of Transportation

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Region IX
2 Embarcadero Center, Suite 610
San Francisco, California 94111 — 1

Federal Highway Administration
Attn: Regional Administrator
Attn: Director, Office of Environment and Design
2 Embarcadero Center, Suite 530
San Francisco, California 94111 — 2

U. S. Coast Guard
Attn: Environmental Protection Specialist, E. Wolfe
Marine Environmental Protection and Ports Navigation
11th Coast Guard District
Hartwell Building
Long Beach, California 90802 — 1

U .S. Coast Guard
Marine Environmental Protection Branch
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Department of Commerce

Department of Commerce
Deputy Assistant Secretary for
Environmental Affairs
Attn: Mr. Sidney Galler
Commerce Building, Room 2816 5
Washington, D. C. 20230

Department of Commerce, NOAA
National Marine Fisheries Service
Environmental Assessment Division
3150 Paradise Drive 1
Tiburon, California 94920

General Services Administration

General Services Administration
Operational Planning Staff
PBS, Mail Slot 30A
525 Market Street 1
San Francisco, California 94105

General Services Administration
Executive Director, Office of
Environmental Affairs
18th & "F" Street, NW 1
Washington, D. C. 20405

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Office of Regional Director
Attn: Regional Environmental Officer
50 Fulton Street
San Francisco, California 94102 1

Department of Health, Education and Welfare
Director, Office of Environmental Affairs
Office of the Secretary, Room 4730 NEW North
330 Independence Avenue, SW
Washington, D. C. 20202 2

Federal Power Commission

Federal Power Commission
Regional Engineer, M. Frank Thomas
555 Battery Street
San Francisco, California 94111 1

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Advisor on Environmental Quality
Office of Energy Systems
825 N. Capitol Street, NE
Washington, D. C. 20426 2

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Washington, D. C. 20506 1

National Committee on Water Quality
1111 Eighteenth NW
Washington, D. C. 20036 1

Water Resources Council
Office of the Associate
Director, Suite 800
2120 "L" Street, NW
Washington, D. C. 20037 1

National Science Foundation
Special Assistant, Office of the
Deputy Assistant Director for
Astronomical, Atmospheric, Earth
and Ocean Sciences, Room 1248
1800 "G" Street, NW
Washington, D. C. 20550 2

National Wildlife Federation
Attn: Robert J. Golten, Counsel
1412 - 16th Street, NW
Washington, D. C. 20036 2

National Park Service
4590 Golden Gate Avenue
San Francisco, California 94102 1

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Operational Planning Staff General Services Administration PBS Mail Slot 30A 525 Market Street San Francisco, California 94105	1

C2 STATE AGENCIES

State Attorney General's Office
2117 West First Street
Los Angeles, California 90012
Attn: Robert O'Brien

California SWRC Board
Division of Water Quality
1416 Ninth Street
Sacramento, California 95814
Attn: Dave Holtry

California State Air Resources Board
1709 - 11th Street
Sacramento, California 95814

Mr. G. Ray Arnett, Director
California State Department of Fish and Game
1416 Ninth Street
Sacramento, California 95814

Mr. Bruce Eliason, Environmental Coordinator
California State Department of Fish and Game
350 Golden Shore
Long Beach, California

Mr. Bob Chin
State of California
Department of Water Resources
P. O. Box 6598
Los Angeles, California 90055

State Office of Inter-Governmental Management
State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, California 95814

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Department of Health
2151 Berkeley Way
Berkeley, California 94704

Mr. William J. MacPherson
State of California
Department of Health
1449 Temple Street, No. 207
Los Angeles, California 90026

State of California
Department of Public Health
Bureau of Sanitary Engineering
744 P Street
Sacramento, California 95814

State of California
Department of Parks and Recreation
P. O. Box 2390
Sacramento, California 95811

State of California
Department of Parks and Recreation
History Preservation Section
P. O. Box 2390
Sacramento, California 95811

State of California
Department of Conservation
1416 Ninth Street
Sacramento, California 95811
Attn: Bill Leaf

State of California
Office of Intergovernmental Management
Attn: Mark Briggs
1400 Tenth Street
Sacramento, California 95814

State of California
Council on Intergovernmental Relations
1400 Tenth Street
Sacramento, California 95814

State of California
State Land Division
Attn: Ed Chatfield
16600 "L" Street
Sacramento, California 95814

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State Lands Division
100 Oceangate, Suite 300
Long Beach, California 90802
Attn: Norm Harvey

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Sacramento, California 95814
Attn: Dr. Robert Pratt

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Attn: Mary Schell

State Reclamation Board
1416 Ninth Street
Sacramento, California 95814
Attn: Allen Wendruff

Mr. David N. Smith
South Coast Regional Coastal Zone
Conservation Commission
666 East Ocean Boulevard, Suite 3107
P. O. Box 1450
Long Beach, California 90801

Mrs. Jean Chamberlin
South Coast Regional Coastal Zone
Conservation Commission
666 East Ocean Boulevard, Suite 3107
P. O. Box 1450
Long Beach, California 90801

Caltrans
Highways
1220 N Street
Sacramento, California 95814
Attn: Ron Lutz

Caltrans
Transportation Planning
2520 Marconi Avenue
Sacramento, California 95821
Attn: Bill Sherman

Energy Resources Conservation & Development Commission
455 Capitol Mall
Sacramento, California 95814
Attn: Thelma Johnson

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Sacramento, California 95814
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Sacramento, California 95814
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Public Utilities Commission
Civic Center, State Building
San Francisco, California 94102
Attn: William Johnson

Solid Waste Management Board
1416 Ninth Street
Sacramento, California 95814
Attn: Albert A. Marino

The Resources Agency
1416 Ninth Street
Sacramento, California 95814

03 OTHER CONCERNED AGENCIES

Mr. Richard A. Harris
Regional Water Quality Control Board
Los Angeles Region
107 South Broadway
No. 4027
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Appendix C

federal register

MONDAY, APRIL 14, 1975
WASHINGTON, D.C.

Volume 40 ■ Number 72

PART III

THE NATIONAL ARCHIVES OF THE UNITED STATES • 1934 •

ENVIRONMENTAL PROTECTION AGENCY

Preparation of Environmental Impact Statements

■

Final Regulations

Title 40—Protection of Environment

CHAPTER I—ENVIRONMENTAL PROTECTION AGENCY

[FRL 327-5]

PART 6—PREPARATION OF ENVIRONMENTAL IMPACT STATEMENTS

Final Regulation

The National Environmental Policy Act of 1969 (NEPA), implemented by Executive Order 11514 of March 5, 1970, and the Council on Environmental Quality's (CEQ's) Guidelines of August 1, 1973, requires that all agencies of the Federal Government prepare detailed environmental impact statements on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment. NEPA requires that agencies include in their decision-making process an appropriate and careful consideration of all environmental aspects of proposed actions, an explanation of potential environmental effects of proposed actions and their alternatives for public understanding, a discussion of ways to avoid or minimize adverse effects of proposed actions and a discussion of how to restore or enhance environmental quality as much as possible.

On January 17, 1973, the Environmental Protection Agency (EPA) published a new Part 6 in interim form in the Federal Register (38 FR 1696), establishing EPA policy and procedures for the identification and analysis of environmental impacts and the preparation of environmental impact statements (EIS's) when significant impacts on the environment are anticipated.

On July 17, 1974, EPA published a notice of proposed rulemaking the Federal Register (39 FR 26254). The rulemaking provided detailed procedures for applying NEPA to EPA's nonregulatory programs only. A separate notice of administrative procedure published in the October 21, 1974, Federal Register (39 FR 37419) gave EPA's procedures for voluntarily preparing EIS's on certain regulatory activities. EIS procedures for another regulatory activity, issuing National Pollutant Discharge Elimination System (NPDES) discharge permits to new sources, will appear in 40 CFR 6. Associated amendments to the NPDES operating regulations, covering permits to new sources, will appear in 40 CFR 125.

The proposed regulation on the preparation of EIS's for nonregulatory programs was published for public review and comment. EPA received comments on this proposed regulation from environmental groups; Federal, State and local governmental agencies; industry; and private individuals. As a result of the comments received, the following changes have been made:

(1) Coastal zones, wild and scenic rivers, prime agricultural land and wildlife habitat were included in the criteria to be considered during the environmental review.

The Coastal Zone Management Act and the Wild and Scenic Rivers Act are intended to protect these environmentally sensitive areas; therefore, EPA should consider the effects of its projects on these areas. Protection of prime agricultural lands and wildlife habitat has become an important concern as a result of the need to further increase food production from domestic sources as well as commercial harvesting of fish and other wildlife resources and from the continuing need to preserve the diversity of natural resources for future generations.

(2) Consideration of the use of floodplains as required by Executive Order 11296 was added to the environmental review process.

Executive Order 11296 requires agencies to consider project alternatives which will preclude the uneconomic, hazardous or unnecessary use of floodplains to minimize the exposure of facilities to potential flood damage, lessen the need for future Federal expenditures for flood protection and flood disaster relief and preserve the unique and significant public value of the floodplain as an environmental resource.

(3) Statutory definitions of coastal zones and wild and scenic rivers were added to § 6.214(b).

These statutes define sensitive areas and require states to designate areas which must be protected.

(4) The review and comment period for negative declarations was extended from 15 days to 15 working days.

Requests for negative declarations and comments on negative declarations are not acted on during weekends and on holidays. In addition, mail requests often take two or three days to reach the appropriate office and several more days for action and delivery of response. Therefore, the new time frame for review and response to a negative declaration is more realistic without adding too much delay to a project.

(5) Requirements for more data in the negative declaration to clarify the proposed action were added in § 6.212(b).

Requiring a summary of the impacts of a project and other data to support the negative declaration in this document improves its usefulness as a tool to review the decision not to prepare a full EIS on a project.

(6) The definitions of primary and secondary impacts in § 6.304 were clarified.

The definitions were made more specific, especially in the issue areas of induced growth and growth rates, to reduce subjectivity in deciding whether an impact is primary or secondary.

(7) Procedures for EPA public hearings in Subpart D were clarified.

Language was added to this subpart to distinguish EPA public hearings from applicant hearings required by statute or regulation, such as the facilities plan hearings.

(8) The discussion of retroactive application (§ 6.504) was clarified and abbreviated.

The new language retains flexibility in decision making for the Regional Administrator while eliminating the ambiguity of the langauge in the interim regulation.

(9) The criteria for writing an EIS if wetlands may be affected were modified in § 6.510(b).

The new language still requires an EIS on a project which will be located on wetlands but limits the requirements for an EIS on secondary wetland effects to those which are significant and adverse.

(10) A more detailed explanation of the data required in environmental assessments (§ 6.512) was added.

Requiring more specific data in several areas, including energy production and consumption as well as land use trends and population projections, from the applicant will provide a more complete data base for the environmental review. Documentation of the applicant's data will allow EPA to evaluate the validity of this data.

(11) Subpart F, Guidelines for Compliance with NEPA in Research and Development Programs and Activities, was revised.

ORD simplified this subpart by removing the internal procedures and assignments of responsibility for circulation in internal memoranda. Only the general application of this regulation to ORD programs was retained.

(12) The discussions of responsibilities and document distribution procedures were moved to appendices attached to the regulations.

These sections were removed from the regulatory language to improve the readability of the regulation and because these discussions are more explanatory and do not need to have the legal force of regulatory language.

(13) Consideration of the Endangered Species Act of 1973 was incorporated into the regulation.

EPA recognizes its responsibility to assist with implementing legislation which will help preserve or improve our natural resources.

The major issues raised on this regulation were on new and proposed criteria for determining when to prepare an EIS and the retroactive application of the criteria to projects started before July 1, 1975. In addition to the new criteria which were added, CEQ requested the addition of several quantitative criteria for which parameters have not been set. These new criteria are being discussed with CEQ and may be added to the regulation at a future date. Changes in the discussion of retroactive application of the criteria are described in item 8 above.

EPA believes that Agency compliance with the regulations of Part 6 will enhance the present quality of human life without endangering the quality of the natural environment for future generations.

Effective date: This regulation will become effective April 14, 1975.

Dated: April 3, 1975.

Russell E. Train,
Administrator.

Subpart A—General

Sec.
6.100 Purpose and policy.
6.102 Definitions.
6.104 Summary of procedures for implementing NEPA.
6.106 Applicability.
6.108 Completion of NEPA procedures before start of administrative action.
6.110 Responsibilities.

Subpart B—Procedures

6.200 Criteria for determining when to prepare an environmental impact statement.
6.202 Environmental assessment.
6.204 Environmental review.
6.206 Notice of intent.
6.208 Draft environmental impact statements.
6.210 Final environmental impact statements.
6.212 Negative declarations and environmental impact appraisals.
6.214 Additional procedures.
6.216 Availability of documents.

Subpart C—Content of Environmental Impact Statements

6.300 Cover sheet.
6.302 Summary sheet.
6.304 Body of statement.
6.306 Documentation.

Subpart D—EPA Public Hearings on Impact Statements

6.400 General.
6.402 Public hearing process.

Subpart E—Guidelines for Compliance With NEPA in the Title II Wastewater Treatment Works Construction Grants Program and the Areawide Waste Treatment Management Planning Program

6.500 Purpose.
6.502 Definitions.
6.504 Applicability.
6.506 Completion of NEPA procedures before start of administrative actions.
6.510 Criteria for preparation of environmental impact statements.
6.512 Procedures for implementing NEPA.
6.514 Content of environmental impact statements.

Subpart F—Guidelines for Compliance With NEPA in Research and Development Programs and Activities

6.600 Purpose.
6.602 Definitions.
6.604 Applicability.
6.606 Criteria for determining when to prepare environmental impact statements.
6.610 Procedures for compliance with NEPA.

Subpart G—Guidelines for Compliance With NEPA in Solid Waste Management Activities

6.700 Purpose.
6.702 Criteria for the preparation of environmental assessments and EIS's.
6.704 Procedures for compliance with NEPA.

Subpart H—Guidelines for Compliance With NEPA in Construction of Special Purpose Facilities and Facility Renovations

6.800 Purpose.
6.802 Definitions.
6.804 Applicability.
6.806 Criteria for the preparation of environmental assessments and EIS's.
6.810 Procedures for compliance with NEPA.

EXHIBITS

1. (Page 1.) Notice of Intent Transmittal Memorandum Suggested Format.
(Page 2.) Notice of Intent Suggested Format.
2. Public Notice and News Release Suggested Format.
3. Negative Declaration Suggested Format.
4. Environmental Impact Appraisal Suggested Format.
5. Cover Sheet Format for Environmental Impact Statements.
6. Summary Sheet Format for Environmental Impact Statements.
7. Flowchart for Solid Waste Management Program Operations.
Appendix A—Checklist for Environmental Reviews.
Appendix B—Responsibilities.
Appendix C—Availability and Distribution of Documents.

Authority: Secs. 102, 103 of 83 Stat. 854 (42 U.S.C. 4321 et seq.)

Subpart A—General

§ 6.100 Purpose and policy.

(a) The National Environmental Policy Act (NEPA) of 1969, implemented by Executive Order 11514 and the Council on Environmental Quality's (CEQ's) Guidelines of August 1, 1973 (38 FR 20550), requires that all agencies of the Federal Government prepare detailed environmental impact statements on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment. NEPA requires that agencies include in the decision-making process appropriate and careful consideration of all environmental effects of proposed actions, explain potential environmental effects of proposed actions and their aternatives for public understanding, avoid or minimise adverse effects of proposed actions and restore or enhance environmental quality as much as possible.

(b) This part establishes Environmental Protection Agency (EPA) policy and procedures for the identification and analysis of the environmental impacts of EPA nonregulatory actions and the preparation and processing of environmental impact statements (EIS's) when significant impacts on the environment are anticipated.

§ 6.102 Definitions.

(a) "Environmental assessment" is a written analysis submitted to EPA by its grantees or contractors describing the environmental impacts of proposed actions undertaken with the financial support of EPA. For facilities or section 208 plans as defined in § 6.102 (j) and (k), the assessment must be an integral, though identifiable, part of the plan submitted to EPA for review.

(b) "Environmental review" is a formal evaluation undertaken by EPA to determine whether a proposed EPA action may have a significant impact on the environment. The environmental assessment is one of the major sources of information used in this review.

(c) "Notice of intent" is a memorandum, prepared after the environmental review, announcing to Federal, regional, State, and local agencies, and to interested persons, that a draft EIS will be prepared.

(d) "Environmental impact statement" is a report, prepared by EPA, which identifies and analyzes in detail the environmental impacts of a proposed EPA action and feasible alternatives.

(e) "Negative declaration" is a written announcement, prepared after the environmental review, which states that EPA has decided not to prepare an EIS and summarises the environmental impact appraisal.

(f) "Environmental impact appraisal" is based on an environmental review and supports a negative declaration. It describes a proposed EPA action, its expected environmental impact, and the basis for the conclusion that no significant impact is anticipated.

(g) "NEPA-associated documents" are any one or combination of: notices of intent, negative declarations, exemption certifications, environmental impact appraisals, news releases, EIS's, and environmental assessments.

(h) "Responsible official" is an Assistant Administrator, Deputy Assistant Administartor, Regional Administrator or their designee.

(i) "Interested persons" are individuals, citizen groups, conservation organizations, corporations, or other nongovernmental units, including applicants for EPA contracts or grants, who may be interested in, affected by, or technically competent to comment on the environmental impacts of the proposed EPA action.

(j) "Section 208 plan" is an areawide waste treatment management plan prepared under section 208 of the Federal Water Pollution Control Act (FWPCA), as amended, under 40 CFR Part 126 and 40 CFR Part 35, Subpart F.

(k) "Facilities plan" is a preliminary plan prepared as the basis for construction of publicly owned waste treatment works under Title II of FWPCA, as amended, under 40 CFR 35.917.

(l) "Intramural project" is an inhouse project undertaken by EPA personnel.

(m) "Extramural project" is a project undertaken by grant or contract.

§ 6.104 Summary of procedures for implementing NEPA.

(a) *Responsible official.* The responsible official shall utilise a systematic, interdisciplinary approach to integrate natural and social sciences as well as environmental design arts in planning programs and making decisions which are subject to NEPA review. His staff may be supplemented by professionals from other agencies, universities or consultants whenever in-house capabilities are insufficiently interdisciplinary.

(b) *Environmental assessment.* Environmental assessments must be submitted to EPA by its grantees and contractors, as required in Subparts E, F, G, and H of this part. The assessment is used by EPA to decide if an EIS is required and to prepare one if necessary.

(c) *Environmental review.* Environmental reviews shall be made of proposed and certain ongoing EPA actions as required in § 6.106(c). This process shall consist of a study of the action to identify and evaluate the environmental impacts of the action. Types of grants, contracts and other actions requiring study are listed in the subparts following

Subpart D. The process shall include a review of any environmental assessment received to determine whether any significant impacts are anticipated, whether any changes can be made in the proposed action to eliminate significant adverse impacts, and whether an EIS is required. EPA has overall responsibility for this review, although its grantees and contractors will contribute to the review through their environmental assessments.

(d) *Notice of intent and EIS's.* When an environmental review indicates that a significant environmental impact may occur and the significant adverse impacts cannot be eliminated by making changes in the project, a notice of intent shall be published, and a draft EIS shall be prepared and distributed. After external coordination and evaluation of the comments received, a final EIS shall be prepared and distributed. EIS's should be prepared first on those proposed actions with the most adverse effects which are scheduled for earliest implementation and on other proposed actions according to priorities assigned by the responsible official.

(e) *Negative declaration and environmental impact appraisal.* When the environmental review indicates no significant impacts are anticipated or when the project is changed to eliminate the significant adverse impacts, a negative declaration shall be issued. For the cases in Subparts E, F, G, and H of this part, an environmental impact appraisal shall be prepared which summaries the impacts, alternatives and reasons an EIS was not prepared. It shall remain on file and be available for public inspection.

§ 6.106 Applicability.

(a) *Administrative actions covered.* This part applies to the administrative actions listed below. The subpart referenced with each action lists the detailed NEPA procedures associated with the action. Administrative actions are:

(1) Development of EPA legislative proposals;

(2) Development of favorable reports on legislation initiated elsewhere and not accompanied by an EIS, when they relate to or affect matters within EPA's primary areas of responsibility;

(3) For the programs under Title II of FWPCA, as amended, those administrative actions in § 6.504;

(4) For the Office of Research and Development, those administrative actions in § 6.604;

(5) For the Office of Solid Waste Management Programs, those administrative actions in § 6.702;

(6) For construction of special purpose facilities and facility renovations, those administrative actions in § 6.804; and

(7) Development of an EPA project in conjunction with or located near a project or complex of projects started by one or more Federal agencies when the cumulative effects of all the projects will be major allocations of resources or foreclosures of future land use options.

(b) *Administrative actions excluded.* The requirements of this part do not apply to environmentally protective regulatory activities undertaken by EPA, nor to projects exempted in § 6.504, § 6.604, and § 6.702.

(c) *Application to ongoing actions.* This regulation shall apply to uncompleted and continuing EPA actions initiated before the promulgation of these procedures when modifications of or alternatives to the EPA action are still available, except for the Title II construction grants program. Specific application for the construction grants program is in § 6.504(c). An EIS shall be prepared for each project found to have significant environmental effects as described in § 6.200.

(d) *Application to legislative proposals.* (1) As noted in paragraphs (a) (1) and (2) of this section, EIS's or negative declarations shall be prepared for legislative proposals or favorable reports relating to legislation which may significantly affect the environment. Because of the nature of the legislative process, EIS's for legislation must be prepared and reviewed according to the procedures followed in the development and review of the legislative matter. These procedures are described in Office of Management and Budget (OMB) Circular No. A–19.

(2) A working draft EIS shall be prepared by the EPA office responsible for preparing the legislative proposal or report on legislation. It shall be prepared concurrently with the development of the legislative proposal or report and shall contain the information required in § 6.304. The EIS shall be circulated for internal EPA review with the legislative proposal or report and other supporting documentation. The working draft EIS shall be modified to correspond with changes made in the proposal or report during the internal review. All major alternatives developed during the formulation and review of the proposal or report should be retained in the working draft EIS.

(i) The working draft EIS shall accompany the legislative proposal or report to OMB. EPA shall revise the working draft EIS to respond to comments from OMB and other Federal agencies.

(ii) Upon transmittal of the legislative proposal or report to Congress, the working draft EIS will be forwarded to CEQ and the Congress as a formal legislative EIS. Copies will be distributed according to procedures described in Appendix C.

(iii) Comments received by EPA on the legislative EIS shall be forwarded to the appropriate Congressional Committees. EPA also may respond to specific comments and forward its responses with the comments. Because legislation undergoes continuous changes in Congress beyond the control of EPA, no final EIS need be prepared by EPA.

§ 6.108 Completion of NEPA procedures before starting administrative action.

(a) No administrative action shall be taken until the environmental review process, resulting in an EIS or a negative declaration with environmental appraisal, has been completed.

(b) *When an EIS will be prepared.* Except when requested by the responsible official in writing and approved by CEQ, no administrative action shall be taken sooner than ninety (90) calendar days after a draft EIS has been distributed or sooner than thirty (30) calendar days after the final EIS has been made public. If the final text of an EIS is filed within ninety (90) days after a draft EIS has been circulated for comment, furnished to CEQ and made public, the minimum thirty (30) day period and the ninety (90) day period may run concurrently if they overlap. The minimum periods for review and advance availability of EIS's shall begin on the date CEQ publishes the notice of receipt of the EIS in the FEDERAL REGISTER. In addition, the proposed action should be modified to conform with any changes EPA considers necessary before the final EIS is published.

(c) *When an EIS will not be prepared.* If EPA decides not to prepare an EIS on any action listed in this part for which a negative declaration with environmental appraisal has been prepared, no administrative action shall be taken for at least fifteen (15) working days after the negative declaration is issued to allow public review of the decision. If significant environmental issues are raised during the review period, the decision may be changed and a new environmental appraisal or an EIS may be prepared.

§ 6.110 Responsibilities.

See Appendix B for responsibilities of this part.

Subpart B—Procedures

§ 6.200 Criteria for determining when to prepare an EIS.

The following general criteria shall be used when reviewing a proposed EPA action to determine if it will have a significant impact on the environment and therefore require an EIS:

(a) *Significant environmental effects.* (1) An action with both beneficial and detrimental effects should be classified as having significant effects on the environment, even if EPA believes that the net effect will be beneficial. However, preference should be given to preparing EIS's on proposed actions which, on balance, have adverse effects.

(2) When determining the significance of a proposed action's impacts, the responsible official shall consider both its short term and long term effects as well as its primary and secondary effects as defined in § 6.304(c). Particular attention should be given to changes in land use patterns; changes in energy supply and demand; increased development in floodplains; significant changes in ambient air and water quality or noise levels; potential violations of air quality, water quality and noise level standards; significant changes in surface or groundwater quality or quantity; and encroach-

ments on wetlands, coatstal zones, or fish and wildlife habitat, especially when threatened or endangered species may be affected.

(3) Minor actions which may set a precedent for future major actions with significant adverse impacts or a number of actions with individually insignificant but cumulatively significant adverse impacts shall be classified as having significant environmental impacts. If EPA is taking a number of minor, environmentally insignificant actions that are similar in execution and purpose, during a limited time span and in the same general geographic area, the cumulative environmental impact of all of these actions shall be evaluated.

(4) In determining the significance of a proposed action's impact, the unique characteristics of the project area should be carefully considered. For example, proximity to historic sites, parklands or wild and scenic rivers may make the impact significant. A project discharging into a drinking water aquifier may make the impact significant.

(5) A proposed EPA action which will have direct and significant adverse effects on a property listed in or eligible for listing in the National Register of Historic Places or will cause irreparable loss or destruction of significant scientific, prehistoric, historic or archaeological data shall be classified as having significant environmental impacts.

(b) *Controversial actions*. An EIS shall be prepared when the environmental impact of a proposed EPA action is likely to be highly controversial.

(c) *Additional criteria for specific programs*. Additional criteria for various EPA programs are in Subpart E (Title II Wastewater Treatment Works Construction Grants Program), Subpart F (Research and Development Programs), Subpart G (Solid Waste Management Programs) and Subpart H (Construction of Special Facilities and Facility Renovations).

§ 6.202 Environmental assessment.

Environmental assessments must be submitted to EPA by its grantees and contractors as required in Subparts E, F, G, and H of this part. The assessment is to ensure that the applicant considers the environmental impacts of the proposed action at the earliest possible point in his planning process. The assessment and other relevant information are used by EPA to decide if an EIS is required. While EPA is responsible for ensuring that EIS's are factual and comprehensive, it expects assessments and other data submitted by grantees and contractors to be accurate and complete. The responsible official may request additional data and analyses from grantees or other sources any time he determines they are needed to comply adequately with NEPA.

§ 6.204 Environmental review.

Proposed EPA actions, as well as ongoing EPA actions listed in § 6.105(c), shall be subjected to an environmental review. This review shall be a continuing one, starting at the earliest possible point in the development of the project. It shall consist of a study of the proposed action, including a review of any environmental assessments received, to identify and evaluate the environmental impacts of the proposed action and feasible alternatives. The review will determine whether significant impacts are anticipated from the proposed action, whether any feasible alternatives can be adopted or changes can be made in project design to eliminate significant adverse impacts, and whether an EIS or a negative declaration is required. The responsible official shall determine the proper scope of the environmental review. The responsible official may delay approval of related projects until the proposals can be reviewed together to allow EPA to properly evaluate their cumulative impacts.

§ 6.206 Notice of intent.

(a) *General*. (1) When an environmental review indicates a significant impact may occur and significant adverse impacts cannot be eliminated by making changes in the project, a notice of intent, announcing the preparation of a draft EIS, shall be issued by the responsible official. The notice shall briefly describe the EPA action, its location, and the issues involved (Exhibit 1).

(2) The purpose of a notice of intent is to involve other government agencies and interested persons as early as possible in the planning and evaluation of EPA actions which may have significant environmental impacts. This notice should encourage agency and public input to a draft EIS and assure that environmental values will be identified and weighed from the outset rather than accommodated by adjustments at the end of the decision-making process.

(b) *Specific actions*. The specific actions to be taken by the responsible official on notices of intent are:

(1) When the review process indicates a significant impact may occur and significant adverse impacts cannot be eliminated by making changes in the project, prepare a notice of intent immediately after the environmental review.

(2) Distribute copies of the notice of intent as required in Appendix C.

(3) Publish in a local newspaper, with adequate circulation to cover the area affected by the project, a brief public notice stating that an EIS will be prepared on a particular project, and the public may participate in preparing the EIS (Exhibit 2). News releases also may be submitted to other media.

(c) *Regional office assistance to program offices*. Regional offices will provide assistance to program offices in taking these specific actions when the EIS originates in a program office.

§ 6.208 Draft EIS's.

(a) *General*. (1) The responsible official shall assure that a draft EIS is prepared as soon as possible after the release of the notice of intent. Before releasing the draft EIS to CEQ, a preliminary version may be circulated for review to other offices within EPA with interest in or technical expertise related to the action. Then the draft EIS shall be sent to CEQ and circulated to Federal, State, regional and local agencies with special expertise or jurisdiction by law, and to interested persons. If the responsible official determines that a public hearing on the proposed action is warranted, the hearing will be held after the draft EIS is prepared, according to the requirements of § 6.402.

(2) Draft EIS's should be prepared at the earliest possible point in the project development. If the project involves a grant applicant or potential contractor, he must submit any data EPA requests for preparing the EIS. Where a plan or program has been developed by EPA or submitted to EPA for approval, the relationship between the plan and the later projects encompassed by its shall be evaluated to determine the best time to prepare an EIS. Whenever possible, an EIS will be drafted for the total program at the initial planning stage. Then later component projects included in the plan will not require individual EIS's unless they differ substantially from the plan, or unless the overall plan did not provide enough detail to fully assess significant impacts of individual projects. Plans shall be reevaluated by the responsible official to monitor the cumulative impact of the component projects and to preclude the plans' obsolescence.

(b) *Specific actions*. The specific actions to be taken by the responsible official on draft EIS's are:

(1) Distribute the draft EIS according to the procedures in Appendix C.

(2) Inform the agencies to reply directly to the originating EPA office. Commenting agencies shall have at least forty-five (45) calendar days to reply, starting from the date of publication in the FEDERAL REGISTER of lists of statements received by CEQ. If no comments are received during the reply period and no time extension has been requested, it shall be presumed that the agency has no comment to make. EPA may grant extensions of fifteen (15) or more calendar days. The time limits for review and extensions for State and local agencies; State, regional, and metropolitan clearinghouses; and interested persons shall be the same as those available to Federal agencies.

(3) Publish a notice in local newspapers stating that the draft EIS is available for comment and listing where copies may be obtained (Exhibit 2), and submit news releases to other media.

(4) Include in the draft EIS a notice stating that only those Federal, State, regional, and local agencies and interested persons who make substantive comments on the draft EIS or request a copy of the final EIS will be sent a copy.

(c) *Regional office assistance to program office*. If requested, regional offices will provide assistance to program offices in taking these specific actions when the EIS originates in a program office.

§ 6.210 Final EIS's.

(a) Final EIS's shall respond to all substantive comments raised through the review of the draft EIS. Special care should be taken to respond fully to comments disagreeing with EPA's position. (See also § 6.304(g).)

(b) Distribution and other specific actions are described in Appendix C. If there is an applicant, he shall be sent a copy. When the number of comments on the draft EIS is so large that distribution of the final EIS to all commenting entities appears impractical, the program or regional office preparing the EIS shall consult with OFA, which will consult with CEQ about alternative arrangements for distribution of the EIS.

§ 6.212 Negative declaration and environmental impact appraisals.

(a) *General.* When an environmental review indicates there will be no significant impact or significant adverse impacts have been eliminated by making changes in the project, the responsible official shall prepare a negative declaration to allow public review of his decision before it becomes final. The negative declaration and news release must state that interested persons disagreeing with the decision may submit comments for consideration by EPA. EPA shall not take administrative action on the project for at least fifteen (15) working days after release of the negative declaration and may allow more time for response. The responsible official shall have an environmental impact appraisal supporting the negative declaration available for public review when the negative declaration is released for those cases given in Subparts E, F, G, and H.

(b) *Specific actions.* The responsible official shall take the following specific actions on those projects for which both a negative declaration and an impact appraisal will be prepared:

(1) *Negative declaration.* (i) Prepare a negative declaration immediately after the environmental review. This document shall briefly summarize the purpose of the project, its location, the nature and extent of the land use changes related to the project, and the major primary and secondary impacts of the project. It shall describe how the more detailed environmental impact appraisal may be obtained at cost. (See Exhibit 3.)

(ii) Distribute the negative declaration according to procedures in Appendix C. In addition, submit to local newspapers and other appropriate media a brief news release with a negative declaration attached, informing the public that a decision not to prepare an EIS has been made and a negative declaration and environmental impact appraisal are available for public review and comment (Exhibit 2).

(2) *Environmental impact appraisal.* (i) Prepare an environmental impact appraisal concurrently with the negative declaration. This document shall briefly describe the proposed action and feasible alternatives, environmental impacts of the proposed action, unavoidable adverse impacts of the proposed action, the relationship between short term uses of man's environment and the maintenance and enhancement of long term productivity, steps to minimize harm to the environment, irreversible and irretrievable commitments of resources to implement the action, comments and consultations on the project, and reasons for concluding there will be no significant impacts. (See Exhibit 4.)

(ii) Distribute the environmental impact appraisal according to procedures in Appendix C.

§ 6.214 Additional procedures.

(a) *Historical and archaeological sites.* EPA is subject to the requirements of section 106 of the National Historic Preservation Act of 1966, 16 U.S.C. 470 *et seq.*, Executive Order 11593, the Archaeological and Historic Preservation Act of 1974, 16 U.S.C. 469 *et seq.*, and the regulations promulgated under this legislation. These statutes and regulations establish environmental review procedures which are independent of NEPA requirements.

(1) If an EPA action may affect properties with historic, architectural, archaeological or cultural value which are listed in the National Register of Historic Places (published in the FEDERAL REGISTER each February with supplements on the first Tuesday of each month), the responsible official shall comply with the procedures of the Advisory Council on Historic Preservation (36 CFR 800), including determining the need for a Memorandum of Agreement among EPA, the State Historic Preservation Officer and the Advisory Council. If a Memordandum of Agreement is executed, it shall be included in an EIS whenever one is prepared on a proposed action. See § 6.512(c) of this part for additional procedures for the construction grants program under Title II of the FWPCA, as amended.

(2) If an EPA action may cause irreparable loss or destruction of significant scientific, prehistoric, historic or archaeological data, the responsible official shall consult with the State Historic Preservation Officer in compliance with the Archaeological and Historic Preservation Act (P.L. 93-291).

(b) *Wetlands, floodplains, coastal zones, wild and scenic rivers, fish and wildlife.* The following procedures shall be applied to all EPA administrative actions covered by this part that may affect these environmentally sensitive resources.

(1) If an EPA action may affect wetlands, the responsible official shall consult with the appropriate offices of the Department of the Interior, Department of Commerce, and the U.S. Army Corps of Engineers during the environmental review to determine the probable impact of the action on the pertinent fish and wildlife resources and land use of these areas.

(2) If an EPA action may directly cause or induce the construction of buildings or other facilities in a floodplain, the responsible official shall evaluate flood hazards in connection with these facilities as required by Executive Order 11296 and shall, as far as practicable, consider alternatives to preclude the uneconomic, hazardous or unnecessary use of floodplains to minimize the exposure of facilities to potential flood damage, lessen the need for future Federal expenditures for flood protection and flood disaster relief and preserve the unique and significant public value of the floodplain as an environmental resource.

(3) If an EPA action may affect coastal zones or coastal waters as defined in Title III of the Costal Zone Management Act of 1972 (Pub. L. 92-583), the responsible official shall consult with the appropriate State offices and with the appropriate office of the Department of Commerce during the environmental review to determine the probable impact of the action on coastal zone or coastal water resources.

(4) If an EPA action may affect portions of rivers designated wild and scenic or being considered for this designation under the Wild and Scenic Rivers Act (Pub. L. 90-542), the responsible official shall consult with appropriate State offices and with the Secretary of the Interior or, where national forest lands are involved, with the Secretary of Agriculture during the environmental review to determine the status of an affected river and the probable impact of the action on eligible rivers.

(5) If an EPA action will result in the control or structural modification of any stream or other body of water for any purpose, including navigation and drainage, the responsible official shall consult with the United States Fish and Wildlife Service (Department of the Interior), the National Marine Fisheries Service of the National Oceanic and Atmospheric Administration (Department of Commerce), the U.S. Army Corps of Engineers and the head of the agency administering the wildlife resources of the particular State in which the action will take place with a view to the conservation of wildlife resources. This consultation shall follow the procedures in the Fish and Wildlife Coordination Act (Pub. L. 85-624) and shall occur during the environmental review of an action.

(6) If an EPA action may affect threatened or endangered species defined under section 4 of the Endangered Species Act of 1973 (Pub. L. 93-205), the responsible official shall consult with the Secretary of the Interior or the Secretary of Commerce, according to the procedures in section 7 of that act.

(7) Requests for consultation and the results of consultation shall be documented in writing. In all cases where consultation has occurred, the agencies consulted should receive copies of either the notice of intent and EIS or the negative declaration and environmental appraisal prepared on the proposed action. If a decision has already been made to prepare an EIS on a project and wetlands, floodplains, coastal zones, wild

and scenic rivers, fish or wildlife may be affected, the required consultation may be deferred until the preparation of the draft EIS.

§ 6.216 Availability of documents.

(a) EPA will print copies of draft and final EIS's for agency and public distribution. A nominal fee may be charged for copies requested by the public.

(b) When EPA no longer has copies of an EIS to distribute, copies shall be made available for public inspection at regional and headquarters Offices of Public Affairs. Interested persons also should be advised of the availability (at cost) of the EIS from the Environmental Law Institute, 1356 Connecticut Avenue NW., Washington, D.C. 20036.

(c) Lists of EIS's prepared or under preparation and lists of negative declarations prepared will be available at both the regional and headquarters Offices of Public Affairs.

Subpart C—Content of Environmental Impact Statements

§ 6.300 Cover sheet.

The cover sheet shall indicate the type of EIS (draft or final), the official project name and number, the responsible EPA office, the date, and the signature of the responsible official. The format is shown in Exhibit 5.

§ 6.302 Summary sheet.

The summary sheet shall conform to the format in Exhibit 6, based on Appendix I of the August 1, 1973, CEQ Guidelines, or the latest revision of the CEQ Guidelines.

§ 6.304 Body of EIS.

The body of the EIS shall identify, develop, and analyze the pertinent issues discussed in the seven sections below; each section need not be a separate chapter. This analysis should include, but not be limited to, consideration of the impacts of the proposed project on the environmental areas listed in Appendix A which are relevant to the project. The EIS shall serve as a means for the responsible official and the public to assess the environmental impacts of a proposed EPA action, rather than as a justification for decisions already made. It shall be prepared using a systematic, interdisciplinary approach and shall incorporate all relevant analytical disciplines to provide meaningful and factual data, information, and analyses. The presentation of data should be clear and concise, yet include all facts necessary to permit independent evaluation and appraisal of the beneficial and adverse environmental effects of alternative actions. The amount of detail provided should be commensurate with the extent and expected impact of the action and the amount of information required at the particular level of decision making. To the extent possible, an EIS shall not be drafted in a style which requires extensive scientific or technical expertise to comprehend and evaluate the environmental impact of a proposed EPA action.

(a) *Background and description of the proposed action.* The EIS shall describe the recommended or proposed action, its purpose, where it is located and its time setting. When a decision has been made not to favor an alternative until public comments on a proposed action have been received, the draft EIS may treat all feasible alternatives at similar levels of detail; the final EIS should focus on the alternative the draft EIS and public comments indicate is the best. The relationship of the proposed action to other projects and proposals directly affected by or stemming from it shall be discussed, including not only other EPA activities, but also those of other governmental and private organizations. Land use patterns and population trends in the project area and the assumptions on which they are based also shall be included. Available maps, photos, and artists' sketches should be incorporated when they help depict the environmental setting.

(b) *Alternatives to the proposed action.* The EIS shall develop, describe, and objectively weigh feasible alternatives to any proposed action, including the options of taking no action or postponing action. The analysis should be detailed enough to show EPA's comparative evaluation of the environmental impacts, commitments of resources, costs, and risks of the proposed action and each feasible alternative. For projects involving construction, alternative sites must be analyzed in enough detail for reviewers independently to judge the relative desirability of each site. For alternatives involving regionalization, the effects of varying degrees of regionalization should be addressed. If a cost-benefit analysis is prepared, it should be appended to the EIS and referenced in the body of the EIS. In addition, the reasons why the proposed action is believed by EPA to be the best course of action shall be explained.

(c) *Environmental impacts of the proposed action.* (1) The positive and negative effects of the proposed action as it affects both the national and international environment should be assessed. The attention given to different environmental factors will vary according to the nature, scale, and location of proposed actions. Primary attention should be given to those factors most evidently affected by the proposed action. The factors shall include, where appropriate, the proposed action's effects on the resource base, including land, water quality and quantity, air quality, public services and energy supply. The EIS shall describe primary and secondary environmental impacts, both beneficial and adverse, anticipated from the action. The description shall include short term and long term impacts on both the natural and human environments.

(2) Primary impacts are those that can be attributed directly to the proposed action. If the action is a field experiment, materials introduced into the environment which might damage certain plant communities or wildlife species would be a primary impact. If the action involves construction of a facility, such as a sewage treatment works, an office building or a laboratory, the primary impacts of the action would include the environmental impacts related to construction and operation of the facility and land use changes at the facility site.

(3) Secondary impacts are indirect or induced changes. If the action involves construction of a facility, the secondary impacts would include the environmental impacts related to:

(i) induced changes in the pattern of land use, population density and related effects on air and water quality or other natural resources;

(ii) increased growth at a faster rate than planned for or above the total level planned by the existing community.

(4) A discussion of how socioeconomic activities and land use changes related to the proposed action conform or conflict with the goals and objectives of approved or proposed Federal, regional, State and local land use plans, policies and controls for the project area should be included in the EIS. If a conflict appears to be unresolved in the EIS, EPA should explain why it has decided to proceed without full reconciliation.

(d) *Adverse impacts which cannot be avoided should the proposal be implemented and steps to minimize harm to the environment.* The EIS shall describe the kinds and magnitudes of adverse impacts which cannot be reduced in severity or which can be reduced to an acceptable level but not eliminated. These may include water or air pollution, undesirable land use patterns, damage to fish and wildlife habitats, urban congestion, threats to human health or other consequences adverse to the environmental goals in section 101(b) of NEPA. Protective and mitigative measures to be taken as part of the proposed action shall be identified. These measures to reduce or compensate for any environmentally detrimental aspect of the proposed action may include those of EPA, its contractors and grantees and others involved in the action.

(e) *Relationship betwen local short term uses of man's environment and the maintenance and enhancement of long term productivity.* The EIS shall describe the extent to which the proposed action involves tradeoffs between short term environmental gains at the expense of long term gains or vice-versa and the extent to which the proposed action forecloses future options. Special attention shall be given to effects which narrow the range of future uses of land and water resources or pose long term risks to health or safety. Consideration should be given to windfall gains or significant decreases in current property values from implementing the proposed action. In addition, the reasons the proposed action is believed by EPA to be justified now, rather than reserving a long term option for other alternatives, including no action, shall be explained.

(f) *Irreversible and irretrievable commitments of resources to the proposed action should it be implemented.* The EIS shall describe the extent to which the proposed action requires commitment of construction materials, person-hours and funds to design and implement the project, as well as curtails the range of future uses of land and water resources. For example, induced growth in undeveloped areas may curtail alternative uses of that land. Also, irreversible environmental damage can result from equipment malfunctions or industrial accidents at the project site. Therefore, the need for any irretrievable and significant commitments of resources shall be explained fully.

(g) *Problems and objections raised by other Federal, State and local agencies and by interested persons in the review process.* Final EIS's (and draft EIS's if appropriate) shall summarize the comments and suggestions made by reviewing organizations and shall describe the disposition of issues raised, e.g., revisions to the proposed action to mitigate anticipated impacts or objections. In particular, the EIS shall address the major issues raised when the EPA position differs from most recommendations and explain the factors of overriding importance overruling the adoption of suggestions. Reviewer's statements should be set forth in a "comment" and discussed in a "response." In addition, the source of all comments should be clearly identified, and copies of the comments should be attached to the final EIS. Summaries of comments should be attached when a response has been exceptionally long or the same comments were received from many reviewers.

§ 6.306 Documentation.

All books, research reports, field study reports, correspondence and other documents which provided the data base for evaluating the proposed action and alternatives discussed in the EIS shall be used as references in the body of the EIS and shall be included in a bibliography attached to the EIS.

Subpart D—EPA Public Hearings on EIS's

§ 6.400 General.

While EPA is not required by statute to hold public hearings on EIS's, the responsible official should hold a public hearing on a draft EIS whenever a hearing may facilitate the resolution of conflicts or significant public controversy. This hearing may be in addition to public hearings held on facilities plans or section 209 plans. The responsible official may take special measures to involve interested persons through personal contact.

§ 6.402 Public hearing process.

(a) When public hearings are to be held, EPA shall inform the public of the hearing, for example, with a notice in the draft EIS. The notice should follow the summary sheet at the beginning of the EIS. The draft EIS shall be available for public review at least thirty (30) days before the public hearing. Public notice shall be given at least fifteen (15) working days before the public hearing and shall include:

(1) Publication of a public notice in a newspaper which covers the project area, identifying the project, announcing the date, time and place of the hearing and announcing the availability of detailed information on the proposed action for public inspection at one or more locations in the area in which the project will be located. "Detailed information" shall include a copy of the project application and the draft EIS.

(2) Notification of appropriate State and local agencies and appropriate State, regional and metropolitan clearinghouses.

(3) Notification of interested persons.

(b) A written record of the hearing shall be made. A stenographer may be used to record the hearing. As a minimum, the record shall contain a list of witnesses with the text of each presentation. A summary of the record, including the issues raised, conflicts resolved and unresolved, and any other significant portions of the record, shall be appended to the final EIS.

(c) When a public hearing has been held by another Federal, State, or local agency on an EPA action, additional hearings are not necessary. The responsible official shall decide if additional hearings are needed.

(d) When a program office is the originating office, the appropriate regional office will provide assistance to the originating office in holding any public hearing if assistance is requested.

Subpart E—Guidelines for Compliance With NEPA in the Title II Wastewater Treatment Works Construction Grants Program and the Areawide Waste Treatment Management Planning Program

§ 6.500 Purpose.

This subpart amplifies the general EPA policies and procedures described in Subparts A through D with detailed procedures for compliance with NEPA in the wastewater treatment works construction grants program and the areawide waste treatment management planning program.

§ 6.502 Definitions.

(a) "Step 1 grant." A grant for preparation of a facilities plan as described in 40 CFR 35.930–1.

(b) "Step 2 grant." A grant for preparation of construction drawings and specifications as described in 40 CFR 35.930–1.

(c) "Step 3 grant." A grant for fabrication and building of a publicly owned treatment works as described in 40 CFR 35.930–1.

§ 6.504 Applicability.

(a) *Administrative actions covered.* This subpart applies to the administrative actions listed below:

(1) Approval of all section 208 plans according to procedures in 40 CFR 35.1067–2;

(2) Approval of all facilities plans except those listed in paragraph (a)(5) of this section;

(3) Award of step 2 and step 3 grants, if an approved facilities plan was not required;

(4) Award of a step 2 or step 3 grant when either the project or its impact has changed significantly from that described in the approved facilities plan, except when the situation in paragraph (a)(5) of this section exists;

(5) Consultation during the NEPA review process. When there are overriding considerations of cost or impaired program effectiveness, the Regional Administrator may award a step 2 or a step 3 grant for a discrete segment of the project plans or construction before the NEPA review is completed if this project segment is noncontroversial. The remaining portion of the project shall be evaluated to determine if an EIS is required. In applying the criteria for this determination, the entire project shall be considered, including those parts permitted to proceed. In no case may these types of step 2 or step 3 grants be awarded unless both the Office of Federal Activities and CEQ have been consulted, a negative declaration has been issued on the segments permitted to proceed, and the grant award contains a specific agreement prohibiting action on the segment of planning or construction for which the NEPA review is not complete. Examples of consultation during the NEPA review process are: award of a step 2 grant for preparation of plans and specifications for a large treatment plant, when the only unresolved NEPA issue is where to locate the sludge disposal site; or award of a step 3 grant for site clearance for a large treatment plant, when the unresolved NEPA issue is whether sludge from the plant should be incinerated at the site or disposed of elsewhere by other means.

(b) *Administrative actions excluded.* The actions listed below are not subject to the requirements of this part:

(1) Approval of State priority lists;

(2) Award of a step 1 grant;

(3) Award of a section 208 planning grant;

(4) Award of a step 2 or step 3 grant when no significant changes in the facilities plan have occurred;

(5) Approval of issuing an invitation for bid or awarding a construction contract;

(6) Actual physical commencement of building or fabrication;

(7) Award of a section 206 grant for reimbursement;

(8) Award of grant increases whenever § 6.504(a)(4) does not apply;

(9) Awards of training assistance under FWPCA, as amended, section 109(b).

(c) *Retroactive application.* The new criteria in § 6.510 of this subpart do not apply to step 2 or step 3 grants awarded before July 1, 1975. However, the Regional Administrator may apply the new criteria of this subpart when he considers it appropriate. Any negative declarations issued before the effective date of this regulation shall remain in effect.

§ 6.506 Completion of NEPA procedures before start of administrative actions.

See § 6.108 and § 6.504.

§ 6.510 Criteria for preparation of environmental impact statements.

In addition to considering the criteria in § 6.200, the Regional Administrator shall assure that an EIS will be prepared on a treatment works facilities plan, 208 plan or other appropriate water quality management plan when:

(a) The treatment works or plan will induce significant changes (either absolute changes or increases in the rate of change) in industrial, commercial, agricultural, or residential land use concentrations or distributions. Factors that should be considered in determining if these changes are significant include but are not limited to: the vacant land subject to increased development pressure as a result of the treatment works; the increases in population which may be induced; the faster rate of change of population; changes in population density; the potential for overloading sewage treatment works; the extent to which landowners may benefit from the areas subject to increased development; the nature of land use regulations in the affected area and their potential effects on development; and deleterious changes in the availability or demand for energy.

(b) Any major part of the treatment works will be located on productive wetlands or will have significant adverse effects on wetlands, including secondary effects.

(c) Any major part of the treatment works will be located on or significantly affect the habitat of wildlife on the Department of Interior's threatened and endangered species lists.

(d) Implementation of the treatment works or plan may directly cause or induce changes that significantly:

(1) Displace population;

(2) Deface an existing residential area; or

(3) Adversely affect significant amounts of prime agricultural land or agricultural operations on this land.

(e) The treatment works or plan will have significant adverse effects on parklands, other public lands or areas of recognized scenic, recreational, archaeological or historic value.

(f) The works or plan may directly or through induced development have a significant adverse effect upon local ambient air quality, local ambient noise levels, surface or groundwater quantity or quality, fish, wildlife, and their natural habitats.

(g) The treated effluent is being discharged into a body of water where the present classification is too lenient or is being challenged as too low to protect present or recent uses, and the effluent will not be of sufficient quality to meet the requirements of these uses.

§ 6.512 Procedures for implementing NEPA.

(a) *Environmental assessment*. An adequate environmental assessment must be an integral, though identifiable, part of any facilities or section 208 plan submitted to EPA. (See § 6.202 for a general description.) The information in the facilities plan, particularly the environmental assessment, will provide the substance of an EIS and shall be submitted by the applicant. The analyses that constitute an adequate environmental assessment shall include:

(1) *Description of the existing environment without the project*. This shall include for the delineated planning area a description of the present environmental conditions relevant to the analysis of alternatives or determinations of the environmental impacts of the proposed action. The description shall include, but not be limited to, discussions of whichever areas are applicable to a particular study: surface and groundwater quality; water supply and use; general hydrology; air quality; noise levels, energy production and consumption; land use trends; population projections, wetlands, floodplains, coastal zones and other environmentally sensitive areas; historic and archaeological sites; other related Federal or State projects in the area; and plant and animal communities which may be affected, especially those containing threatened or endangered species.

(2) *Description of the future environment without the project*. The future environmental conditions with the no project alternative shall be forecast, covering the same areas listed in § 6.512 (a) (1).

(3) *Documentation*. Sources of information used to describe the existing environment and to assess future environmental impacts should be documented. These sources should include regional, State and Federal agencies with responsibility or interest in the types of impacts listed in § 6.512(a) (1). In particular, the following agencies should be consulted:

(i) Local and regional land use planning agencies for assessments of land use trends and population projections, especially those affecting size, timing, and location of facilities, and planning activities funded under section 701 of the Housing and Community Development Act of 1974 (Pub. L. 93-383);

(ii) The HUD Regional Office if a project involves a flood risk area identified under the Flood Disaster Protection Act of 1973 (Pub. L. 93-234);

(iii) The State coastal zone management agency, if a coastal zone is affected;

(iv) The Secretary of the Interior or Secretary of Agriculture, if a wild and scenic river is affected;

(v) The Secretary of the Interior or Secretary of Commerce, if a threatened or endangered species is affected;

(vi) The Fish and Wildlife Service (Department of Interior), the Department of Commerce, and the U.S. Army Corps of Engineers, if a wetland is affected.

(4) *Evaluation of alternatives*. This discussion shall include a comparative analysis of feasible options and a systematic development of wastewater treatment alternatives. The alternatives shall be screened with respect to capital and operating costs; significant primary and secondary environmental effects; physical, legal or institutional constraints; and whether or not they meet regulatory requirements. Special attention should be given to long term impacts, irreversible impacts and induced impacts such as development. The reasons for rejecting any alternatives shall be presented in addition to any significant environmental benefits precluded by rejection of an alternative. The analysis should consider, when relevant to the project:

(i) Flow and waste reduction measures, including infiltration/inflow reduction;

(ii) Alternative locations, capacities, and construction phasing of facilities;

(iii) Alternative waste management techniques, includign treatment and discharge, wastewater reuse and land application;

(iv) Alternative methods for disposal of sludge and other residual waste, including process options and final disposal options;

(v) Improving effluent quality through more efficient operation and maintenance;

(vi) For assessments associated with section 208 plans, the analysis of options shall include in addition:

(A) Land use and other regulatory controls, fiscal controls, non-point source controls, and institutional arrangements; and

(B) Land management practices.

(5) *Environmental impacts of the proposed action*. Primary and secondary impacts of the proposed action shall be described, giving special attention to unavoidable impacts, steps to mitigate adverse impacts, any irreversible or irretrievable commitments of resources to the project and the relationship between local short term uses of the environment and the maintenance and enhancement of long term productivity. See § 6.304 (c), (d), (e), and (f) for an explanation of these terms and examples. The significance of land use impacts shall be evaluated, based on current population of the planning area; design year population for the service area; percentage of the service area currently vacant; and plans for staging facilities. Special attention should be given to induced changes in population patterns and growth, particularly if a project involves some degree of regionalization. In addition to these items, the Regional Administrator may require that other analyses and data, which he determines are needed to comply with NEPA, be included with the facilities or section 208 plan. Such requirements should be discussed during preapplication conferences. The Regional Administrator also may require submission of supplementary information either before or after a step 2 grant or before a step 3 grant award if he determines it is needed for compliance with NEPA. Requests for supplementary information shall be made in writing.

(6) *Steps to minimize adverse effects*. This section shall describe structural and

nonstructural measures, if any, in the facilities plan to mitigate or eliminate significant adverse effects on the human and natural environments. Structural provisions include changes in facility design, size, and location; nonstructural provisions include staging facilities as well as developing and enforcing land use regulations and environmentally protective regulations.

(b) *Public hearing.* The applicant shall hold at least one public hearing before a facilities plan is adopted, unless waived by the Regional Administrator before completion of the facilities plan according to § 35.917-5 of the Title II construction grants regulations. Hearings should be held on section 208 plans. A copy of the environmental assessment should be available for public review before the hearing and at the hearing, since these hearings provide an opportunity to accept public input on the environmental issues associated with the facilities plan or the 208 water quality management strategy. In addition, a Regional Administrator may elect to hold an EPA hearing if environmental issues remain unresolved. EPA hearings shall be held according to procedures in § 6.402.

(c) *Environmental review.* An environmental review of a facilities plan or section 208 plan shall be conducted according to the procedures in § 6.204 and applying the criteria of § 6.510. If deficiencies exist in the environmental assessment, they shall be identified in writing by the Regional Administrator and must be corrected before the plan can be approved.

(d) *Additional procedures.* (1) Historic and archaeological sites. If a facilities or section 208 plan may affect properties with historic, architectural, archaeological or cultural value which are listed in or eligible for listing in the National Register of Historic Places or may cause irreparable loss or destruction of significant scientific, prehistoric, historic or archaeological data, the applicant shall follow the procedures in § 6.214(a).

(2) If the facilities or section 208 plan may affect wetlands, floodplains, coastal zones, wild and scenic rivers, fish or wildlife, the Regional Administrator shall follow the appropriate procedures described in § 6.214(b).

(e) *Notice of intent.* The notice of intent on a facilities plan or section 208 plan shall be issued according to § 6.206.

(f) *Scope of EIS.* It is the Regional Administrator's responsibility to determine the scope of the EIS. He should determine if an EIS should be prepared on a facilities plan(s) or section 208 plan and which environmental areas should be discussed in greatest detail in the EIS. Once an EIS has been prepared for the designated section 208 area, another need not be prepared unless the significant impacts of individual facilities or other plan elements were not adequately treated in the EIS. The Regional Administrator should document his decision not to prepare an EIS on individual facilities.

(g) *Negative declaration.* A negative declaration on a facilities plan or section 208 plan shall be prepared according to § 6.212. Once a negative declaration and environmental appraisal have been prepared for the facilities plan for a certain area, grant awards may proceed without preparation of additional negative declarations, unless the project has changed significantly from that described in the facilities plan.

§ 6.514 Content of environmental impact statements.

EIS's for treatment works or plans shall be prepared according to § 6.304.

Subpart F—Guidelines for Compliance With NEPA in Research and Development Programs and Activities

§ 6.600 Purpose.

This subpart amplifies the general EPA policies and procedures described in Subparts A through D by providing procedures for compliance with NEPA on actions undertaken by the Office of Research and Development (ORD).

§ 6.602 Definitions.

(a) "Work plan." A document which defines and schedules all projects required to fulfill the objectives of the program plan.

(b) "Program plan." An overall planning document for a major research area which describes one or more research objectives, including outputs and target completion dates, as well as person-year and dollar resources.

(c) "Appropriate program official." The official at each decision level within ORD to whom the Assistant Administrator delegates responsibility for NEPA compliance.

(d) "Exemption certification." A certified statement delineating those actions specifically exempted from NEPA compliance by existing legislation.

§ 6.604 Applicability.

The requirements of this subpart are applicable to administrative actions undertaken to approve program plans, work plans, and projects, except those plans and projects excluded by existing legislation. However, no administrative actions are excluded from the additonal procedures in § 6.214 of this part concerning historic sites, wetlands, coastal zones, wild and scenic rivers, floodplains or fish and wildlife.

§ 6.608 Criteria for determining when to prepare EIS's.

(a) An EIS shall be prepared by ORD when any of the criteria in § 6.200 apply or when:

(1) The action will have significant adverse impacts on public parks, wetlands, floodplains, coastal zones, wildlife habitats, or areas of recognized scenic or recreational value.

(2) The action will significantly deface an existing residential area.

(3) The action may directly or through induced development have a significant adverse effect upon local ambient air quality, local ambient noise levels, surface or groundwater quality; and fish, wildlife or their natural habitats.

(4) The treated effluent is being discharged into a body of water where the present classification is being challenged as too low to protect present or recent uses, and the effluent will not be of sufficient quality to meet the requirements of these uses.

(5) The project consists of field tests involving the introduction of significant quantities of: toxic or polluting agricultural chemicals, animal wastes, pesticides, radioactive materials, or other hazardous substances into the environment by ORD, its grantees or its contractors.

(6) The action may involve the introduction of species or subspecies not indigenous to an area.

(7) There is a high probability of an action ultimately being implemented on a large scale, and this implementation may result in significant environmental impacts.

(8) The project involves commitment to a new technology which is significant and may restrict future viable alternatives.

(b) An EIS will not usually be needed when:

(1) The project is conducted completely within a laboratory or other facility, and external environmental effects have been minimized by methods for disposal of laboratory wastes and safeguards to prevent hazardous materials entering the environment accidentally; or

(2) The project is a relatively small experiment or investigation that is part of a non-Federally funded activity of the private sector, and it makes no significant new or additional contribution to existing pollution.

§ 6.610 Procedures for compliance with NEPA.

EIS related activities for compliance with NEPA will be integrated into the decision levels of ORD's research planning system to assure managerial control. This control includes those administrative actions which do not come under the applicability of this subpart by assuring that they are made the subject of an exemption certification and filed with the Office of Public Affairs (OPA). ORD's internal procedures provide details for NEPA compliance.

(a) *Environmental assessment.* (1) Environmental assessments shall be submitted with all grant applications and all unsolicited contract proposals. The assessment shall contain the same information required for EIS's in § 6.304. Copies of § 6.304 (or more detailed guidance when available) and a notice of the requirement for assessment shall be included in all grant application kits and attached to letters concerning the submission of unsolicited proposals.

(2) In the case of competitive contracts, assessments need not be submitted by potential contractors since the NEPA procedures must be completed before a request for proposal (RFP) is issued. If there is a question concerning

the need for an assessment, the potential contractor should contact the official responsible for the contract.

(b) *Environmental review.* (1) At the start of the planning year, an environmental review will be performed for each program plan with its supporting substructures (work plans and projects) before incorporating them into the ORD program planning system, unless they are excluded from review by existing legislation. This review is an evaluation of the potentially adverse environmental effects of the efforts required by the program plan. The criteria in § 6.608 shall be used in conducting this review. Each program plan with its supporting substructures which does not have significant adverse impacts may be dismissed from further current year environmental considerations with a single negative declaration. Any supporting substructures of a program plan which cannot be dismissed with the parent plan shall be reviewed at the appropriate subordinate levels of the planning system for NEPA compliance.

(i) All continuing program plans and supporting substructures, including those previously dismissed from consideration, will be reevaluted annually for NEPA compliance. An environmental review will coincide with the annual planning cycle and whenever a major redirection of a parent plan is undertaken. All NEPA-associated documents will be updated as appropriate.

(ii) All approved program plans and supporting substructures, less budgetary data, will be filed in the OPA with a notice of intent or negative declaration and environmental appraisal.

(iii) Later plans and/or projects, added to fulfill the mission objectives but not identified at the time the program plans were approved, will be subjected to the same NEPA requirements for environmental assessments and/or reviews.

(iv) Those projects subjected to environmental assesements as outlined in paragraph (a) of this section and not exempt under existing legislation also shall undergo an environmental review before work begins.

(c) *Notice of intent and EIS.*

(1) If the reviews conducted according to paragraph (b) of this section reveal a potentially significant adverse effect on the environment and the adverse impact cannot be eliminated by replanning, the appropriate program official shall, after making sure the project is to be funded, issue a notice of intent according to § 6.206, and through proper organizational channels, shall request the Regional Administrator to assist him in the preparation and distribution of the EIS.

(2) As soon as possible after release of the notice of intent, the appropriate program official shall prepare a draft EIS using the criteria in Subpart B, § 6.208 and Subpart C. Through proper organizational channels, he shall request the Regional Administrator to assist him in the preparation and distribution of the draft EIS.

(3) The appropriate program official shall prepare final EIS's according to criteria in Subpart B, § 6.210 and Subpart C.

(4) All draft and final EIS's shall be sent through the proper organizational channels to the Assistant Administrator for ORD for approval. The approved statements then will be distributed according to the procedures in Appendix C.

(d) *Negative declaration and environmental impact appraisal.* If an environmental review conducted according to paragraph (b) of this section reveals that proposed actions will not have significant adverse environmental impacts, the appropriate program official shall prepare a negative declaration and environmental impact appraisal according to Subpart B, § 6.212. Upon assurance that the program will be funded, the appropriate program official shall distribute the negative declaration as described in § 6.212 and make copies of the negative declaration and appraisal available in the OPA.

(e) *Project start.* As required by § 6.108, a contract or grant shall not be awarded for an extramural project, nor for continuation of what was previously an intramural project, until at least fifteen (15) working days after a negative declaration has been issued or thirty (30) days after forwarding the final EIS to the Council on Environmental Quality.

Subpart G—Guidelines for Compliance With NEPA in Solid Waste Management Activities

§ 6.700 Purpose.

This subpart amplifies the general policies and procedures described in Subparts A through D by providing additional procedures for compliance with NEPA on actions undertaken by the Office of Solid Waste Management Programs (OSWMP).

§ 6.702 Criteria for the preparation of environmental assessments and EIS's.

(a) *Assessment preparation criteria.* An environmental assessment need not be submitted with all grant applications and contract proposals. Studies and investigations do not require assessments. The following sections describe when an assessment is or is not required for other actions:

(1) *Grants.* (i) *Demonstration projects.* Environmental assessments must be submitted with all applications for demonstration grants that will involve construction, land use (temporary or permanent), transport, sea disposal, any discharges into the air or water, or any other activity having any direct or indirect effects on the environment external to the facility in which the work will be conducted. Preapplication proposals for these grants will not require environmental assessments.

(ii) *Training.* Grant applications for training of personnel will not require assessments.

(iii) *Plans.* Grant applications for the development of comprehensive State, interstate, or local solid waste management plans will not require environmental assessments. A detailed analysis of environmental problems and effects should be part of the planning process, however.

(2) *Contracts.* (i) *Sole-source contract proposals.* Before a sole-source contract can be awarded, an environmental assessment must be submitted with a bid proposal for a contract which will involve construction, land use (temporary or permanent), sea disposal, any discharges into the air or water, or any other activity that will directly or indirectly affect the environment external to the facility in which the work will be performed.

(ii) *Competitive contract proposals.* Assessments generally will not be required on competitive contract proposals.

(b) *EIS preparation criteria.* The responsible official shall conduct an environmental review on those OSWMP projects on which an assesment is required or which may have effects on the environment external to the facility in which the work will be performed. The criteria in § 6.200 shall be utilized in determining whether an EIS need be prepared.

§ 6.704 Procedures for compliance with NEPA.

(a) *Environmental assessment.* (1) Environmental assessments shall be submitted to EPA according to procedures in § 6.702. If there is a question concerning the need for an assessment, the potential contractor or grantee should consult with the appropriate project officer for the grant or contract.

(2) The assessment shall contain the same sections specified for EIS's in § 6.304. Copies of § 6.304 (or more detailed guidance when available) and a notice alerting potential grantees and contractors of the assessment requirements in § 6.702 shall be included in all grant application kits, attached to letters concerning the submission of unsolicited proposals, and included with all RFP's.

(b) *Environmental review.* An environmental review will be conducted on all projects which require assessments or which will affect the environment external to the facility in which the work will be performed. This review must be conducted before a grant or contract award is made on an extramural project or before an intramural project begins. The guidelines in § 6.200 will be used to determine if the project will have any significant environmental effects. This review will include an evaluation of the assessment by both the responsible official and the appropriate Regional Administrator. The Regional Administrator's comments will include his recommendations on the need for an EIS. No detailed review or documentation is required on projects for which assessments are not required and which will not affect the environment external to a facility.

(c) *Notice of intent and EIS.* If any of the criteria in § 6.200 apply, the responsible official will assure that a notice

365<

of intent and a draft EIS are prepared. The responsible official may request the appropriate Regional Administrator to assist him in the distribution of the NEPA-associated documents. Distribution procedures are listed in Appendix C.

(d) *Negative declaration and environmental impact appraisal.* If the environmental review indicated no significant environmental impacts, the responsible official will assure that a negative declaration and environmental appraisal are prepared. These documents need not be prepared for projects not requiring an environmental review.

(e) The EIS process for the Office of Solid Waste Management Programs is shown graphically in Exhibit 7.

Subpart H—Guidelines for Compliance With NEPA in Construction of Special Purpose Facilities and Facility Renovations

§ 6.800 Purpose.

This subpart amplifies general EPA policies and procedures described in Subparts A through D by providing detailed procedures for the preparation of EIS's on construction and renovation of special purpose facilities.

§ 6.802 Definitions.

(a) "Special purpose facility." A building or space, including land incidental to its use, which is wholly or predominantly utilized for the special purpose of an agency and not generally suitable for other uses, as determined by the General Services Administration.

(b) "Program of requirements." A comprehensive document (booklet) describing program activities to be accomplished in the new special purpose facility or improvement. It includes architectural, mechanical, structural, and space requirements.

(c) "Scope of work." A document similar in content to the program of requirements but substantially abbreviated. It is usually prepared for small-scale projects.

§ 6.804 Applicability.

(a) *Actions covered.* These guidelines apply to all new special purpose facility construction, activities related to this construction (e.g., site acquisition and clearing), and any improvements or modifications to facilities having potential environmental effects external to the facility, including new construction and improvements undertaken and funded by the Facilities Management Branch, Facilities and Support Services Division, Office of Administration; by a regional office; or by a National Environmental Research Center.

(b) *Actions excluded.* This subpart does not apply to those activities of the Facilities Management Branch, Facilities and Support Services Division, for which the branch does not have full fiscal responsibility for the entire project. This includes pilot plant construction, land acquisition, site clearing and access road construction where the Facilities Management Branch's activity is only supporting a project financed by a program office. Responsibility for considering the environmental impacts of such projects rests with the office managing and funding the entire project. Other subparts of this regulation apply depending on the nature of the project.

§ 6.808 Criteria for the preparation of environmental assessments and EIS's.

(a) *Assessment preparation criteria.* The responsible official shall request an environmental assessment from a construction contractor or consulting architect/engineer employed by EPA if he is involved in the planning, construction or modification of special purpose facilities when his activities have potential environmental effects external to the facility. Such modifications include but are not limited to: facility additions, changes in central heating systems or wastewater treatment systems, and land clearing for access roads and parking lots.

(b) *EIS preparation criteria.* The responsible official shall conduct an environmental review of all actions involving construction of special purpose facilities and improvements to these facilities. The guidelines in § 6.200 shall be used to determine whether an EIS shall be prepared.

§ 6.810 Procedures for compliance with NEPA.

(a) *Environmental review and assessment.* (1) An environmental review shall be conducted when the program of requirements or scope of work has been completed for the construction, improvement, or modification of special purpose facilities. For special purpose facility construction, the Chief, Facilities Management Branch, shall request the assistance of the appropriate program office and Regional Administrator in the review. For modifications and improvements, the appropriate responsible official shall request assistance in making the review from other cognizant EPA offices.

(2) Any assessments requested shall contain the same sections listed for EIS's in § 6.304. Contractors and consultants shall be notified in contractual documents when an assessment must be prepared.

(b) *Notice of intent, EIS, and negative declaration.* The responsible official shall decide at the completion of the environmental review whether there may be any significant environmental impacts. If there could be significant environmental impacts, a notice of intent and an EIS shall be prepared according to the procedures in § 6.206. If there may not be any significant environmental impacts, a negative declaration and environmental impact appraisal shall be prepared according to the procedures in § 6.212.

(c) *Project start.* As required by § 6.108, a contract shall not be awarded or construction-related activities begun until at least fifteen (15) working days after release of a negative declaration, or until thirty (30) days after forwarding the final EIS to the Council on Environmental Quality.

EXHIBIT 1

NOTICE OF INTENT TRANSMITTAL MEMORANDUM SUGGESTED FORMAT

(Date)

ENVIRONMENTAL PROTECTION AGENCY

(Appropriate Office)

(Address, City, State, Zip Code)

To All Interested Government Agencies and Public Groups:

As required by guidelines for the preparation of environmental impact statements (EIS's), attached is a notice of intent to prepare an EIS for the proposed EPA action described below:

(Official Project Name and Number)

(City, State)

If your organization needs additional information or wishes to participate in the preparation of the draft EIS, please advise the (appropriate office, city, State).

Very truly yours,

(Appropriate EPA Official)

(List Federal, State, and local agencies to be solicited for comment.)

(List public action groups to be solicited for comment.)

NOTICE OF INTENT SUGGESTED FORMAT

NOTICE OF INTENT—ENVIRONMENTAL PROTECTION AGENCY

1. Project location:
   City ------------------------------------
   County ---------------------------------
   State -----------------------------------
2. Proposed EPA action:

   ----
3. Issues involved:

   ----
4. Estimated project costs:
   Federal Share (total) ------------ $------
   Contract $---- Grant $---- Other $------
   Applicant share (if any):
   (Name) --------------------------$------
   Other (specify) -------------------$------
   Total ----------------------------$------
5. Period covered by project:
   Start date: ----------------------------
   (Original date, if project covers more than one year)
   Dates of different project phases: --------
   Approximate end date: -----------------
6. Estimated application filing date: --------

EXHIBIT 2

PUBLIC NOTICE AND NEWS RELEASE SUGGESTED FORMAT

PUBLIC NOTICE

The Environmental Protection Agency (originating office) (will prepare, will not prepare, has prepared) a (draft, final) environmental impact statement on the following project:

(Official Project Name and Number)

(Purpose of Project)

(Project Location, City, County, State)

(Where EIS or negative declaration and environmental impact appraisal can be obtained)

This notice is to implement EPA's policy of encouraging public participation in the decision-making process on proposed EPA actions. Comments on this document may be submitted to (full address of originating office).

EXHIBIT 3

NEGATIVE DECLARATION SUGGESTED FORMAT

(Date)

ENVIRONMENTAL PROTECTION AGENCY

(Appropriate Office)

(Address, City, State, Zip Code)

To All Interested Government Agencies and Public Groups:

As required by guidelines for the preparation of environmental impact statements (EIS's), an environmental review has been performed on the proposed EPA action below:

(Official Project Name and Number)

(Potential Agency Financial Share)

(Project Location: City, County, State)

(Other Funds Included)

PROJECT DESCRIPTION, ORIGINATOR, AND PURPOSE

(Include a map of the project area and a brief narrative summarizing the growth the project will serve, the percent of vacant land the project will serve, major primary and secondary impacts of the project, and the purpose of the project.)

The review process did not indicate significant environmental impacts would result from the proposed action or significant adverse impacts have been eliminated by making changes in the project. Consequently, a preliminary decision not to prepare an EIS has been made.

This action is taken on the basis of a careful review of the engineering report, environmental impact assessment, and other supporting data, which are on file in the above office with the environmental impact appraisal and are available for public scrutiny upon request. Copies of the environmental impact appraisal will be sent at cost on your request.

Comments supporting or disagreeing with this decision may be submitted for consideration by EPA. After evaluating the comments received, the Agency will make a final decision; however, no administrative action will be taken on the project for at least fifteen (15) working days after release of the negative declaration.

Sincerely,

(Appropriate EPA Official)

EXHIBIT 4

ENVIRONMENTAL IMPACT APPRAISAL SUGGESTED FORMAT

A. Identify Project.
Name of Applicant:------------------------
Address: ------------------------
Project Number:------------------------

B. Summarize Assessment.

1. Brief description of project:------------

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2. Probable impact of the project on the environment: ------------------------

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----

3. Any probable adverse environmental effects which cannot be avoided:----------

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4. Alternatives considered with evaluation of each:------------------------------

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5. Relationship between local short-term uses of man's environment and maintenance and enhancement of long-term productivity: ------------------------

----

6. Steps to minimize harm to the environment: ------------------------------

----

7. Any irreversible and irretrievable commitment of resources:--------,-----------

----

8. Public objections to project, if any, and their resolution: ------------------

----

9. Agencies consulted about the project: --

State representative's name:----------
Local representative's name:----------
Other: ------------------------------

C. Reasons for concluding there will be no significant impacts.

(Signature of appropriate official)
(Date)

EXHIBIT 5

COVER SHEET FORMAT FOR ENVIRONMENTAL IMPACT STATEMENTS

(Draft, Final)

ENVIRONMENTAL IMPACT STATEMENT

(Describe title of project plan and give identifying number)

Prepared by: ------------------------
(Responsible Agency Office)

Approved by: ------------------------
(Responsible Agency Official)

(Date)

EXHIBIT 6

SUMMARY SHEET FORMAT FOR ENVIRONMENTAL IMPACT STATEMENTS

(Check One)
( ) Draft
( ) Final

ENVIRONMENTAL PROTECTION AGENCY

(Responsible Agency Office)

1. Name of action. (Check one)
   ( ) Administrative action.
   ( ) Legislative action.
2. Brief description of action indicating what States (and counties) are particularly affected.
3. Summary of environmental impact and adverse environmental effects.
4. List alternatives considered.
5. a. (for draft statements) List all Federal State, and local agencies and other comments have been requested.
   b. (for final statements) List all Federal Otate, and local agencies and other sources from which written comments have been received.
6. Dates draft statement and final statement made available to Council on Environmental Quality and public.

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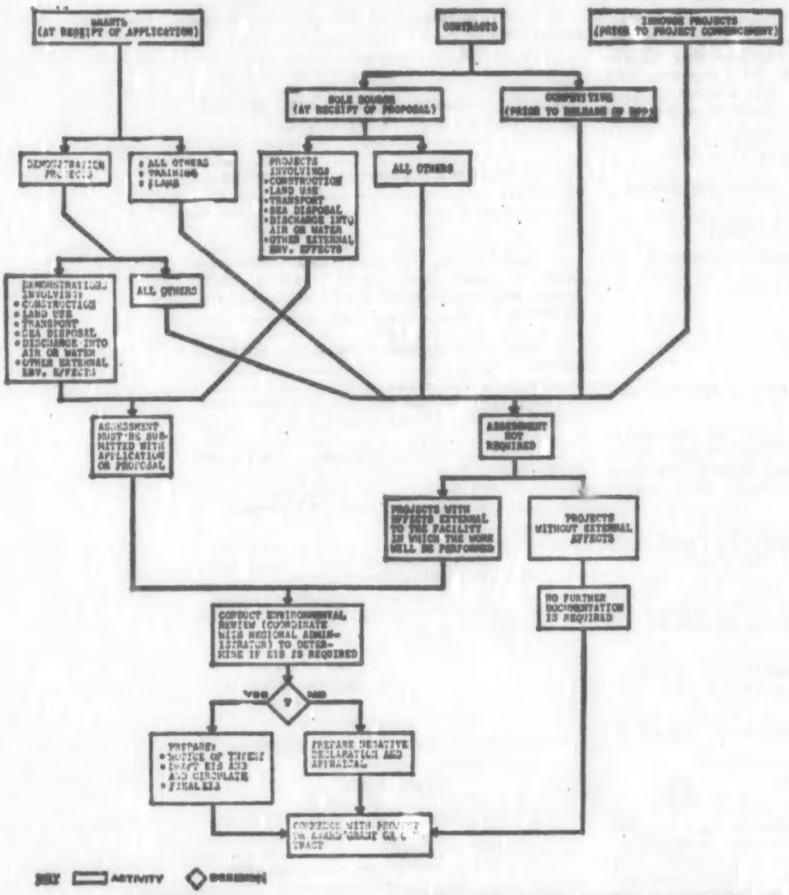
EXHIBIT 7

FLOWCHART FOR OSWMP

PROCEDURES FOR DETERMINING IF AN EIS IS REQUIRED ON OSWMP PROJECTS


GRANTS (AT RECEIPT OF APPLICATION)
CONTRACTS
INHOUSE PROJECTS (PRIOR TO PROJECT COMMENCEMENT)
SOLE SOURCE (AT RECEIPT OF PROPOSAL)
COMPETITIVE (PRIOR TO RELEASE OF RFP)
DEMONSTRATION PROJECTS
• ALL OTHERS • TRAINING • PLANS
PROJECTS INVOLVING: •CONSTRUCTION •LAND USE •TRANSPORT •SEA DISPOSAL •DISCHARGE INTO AIR OR WATER •OTHER EXTERNAL ENV. EFFECTS
ALL OTHERS
DEMONSTRATIONS INVOLVING: • CONSTRUCTION • LAND USE • TRANSPORT • SEA DISPOSAL • DISCHARGE INTO AIR OR WATER • OTHER EXTERNAL ENV. EFFECTS
ALL OTHERS
ASSESSMENT MUST BE SUBMITTED WITH APPLICATION OR PROPOSAL
ASSESSMENT NOT REQUIRED
PROJECTS WITH EFFECTS EXTERNAL TO THE FACILITY IN WHICH THE WORK WILL BE PERFORMED
PROJECTS WITHOUT EXTERNAL EFFECTS
NO FURTHER DOCUMENTATION IS REQUIRED
CONDUCT ENVIRONMENTAL REVIEW (COORDINATE WITH REGIONAL ADMINISTRATOR) TO DETERMINE IF EIS IS REQUIRED
YES
?
NO
PREPARE: • NOTICE OF INTENT • DRAFT EIS AND CIRCULATE • FINAL EIS
PREPARE NEGATIVE DECLARATION AND APPRAISAL
COMMENCE WITH PROJECT OR AWARD GRANT OR CONTRACT
KEY
ACTIVITY
DECISION

APPENDIX A

CHECKLIST FOR ENVIRONMENTAL REVIEWS

Areas to be considered, when appropriate, during an environmental review include, but are not limited to, the items on this checklist, based on Appendix II of the CEQ guidelines for the preparation of environmental impact statements which appeared in the FEDERAL REGISTER August 1, 1973. The classification of items is not mandatory.

I. *Natural environment*. Consider the impacts of a proposed action on air quality, water supply and quality, soil conservation and hydrology, fish, and wildlife populations, fish and wildlife habitats, solid waste disposal, noise levels, radiation, and hazardous substances use and disposal.

II. *Land use planning and management*. Consider the impacts of a proposed action on energy supply and natural resources development; protection of environmentally critical areas, such as floodplains, wetlands, beaches and dunes, unstable soils, steep slopes and aquifer recharge areas, coastal area land use; and redevelopment and construction in built-up areas.

III. *Socioeconomic environment*. Consider the impacts of a proposed action on population density changes; congestion mitigation, neighborhood character and cohesion, low income populations, outdoor recreation, industrial/commercial/residential development and tax ratables, and historic, architectural and archaeological preservation.

APPENDIX B

RESPONSIBILITIES

I. *General responsibilities*. (a) *Responsible official*. (1) Requires contractors and grantees to submit environmental assessments and related documents needed to comply with NEPA, and assures environmental reviews are conducted on proposed EPA projects at the earliest possible point in EPA's decision-making process.

(2) When required, assures that draft EIS's are prepared and distributed at the earliest possible point in EPA's decision-making process, their internal and external review is coordinated, and final EIS's are prepared and distributed.

(3) When an EIS is not prepared, assures that negative declarations and environmental appraisals are prepared and distributed for those actions requiring them.

(4) Consults with appropriate officials identified in § 6.214 of this part.

(5) Consults with the Office of Federal Activities on actions involving unresolved conflicts with other Federal agencies.

(b) *Office of Federal Activities*. (1) Provides EPA with policy guidance and assures that EPA offices establish and maintain adequate administrative procedures to comply with this part.

(2) Monitors the overall timeliness and quality of the EPA effort to comply with this part.

(3) Provides assistance to responsible officials as required.

(4) Coordinates the training of personnel involved in the review and preparation of EIS's and other NEPA-associated documents.

(5) Acts as EPA liaison with the Council on Environmental Quality and other Federal and State entities on matters of EPA policy and administrative mechanisms to facilitate external review of EIS's, to determine lead agency and to improve the uniformity of the NEPA procedures of Federal agencies.

(6) Advises the Administrator and Deputy Administrator on projects which involve more than one EPA office, are controversial, are nationally significant, or "pioneer" EPA policy, when these projects have had or should have an EIS prepared on them.

(c) *Office of Public Inquiries*. Assists the Office of Federal Activities and responsible officials by answering the public's queries on the EIS process and on specific EIS's and by directing requests for copies of specific documents to the appropriate regional office or program.

(d) *Office of Public Affairs*. Analyzes the present procedures for public participation, and develops and recommends to the Office of Federal Activities a program to improve those procedures and increase public participation.

(e) *Regional Office Division of Public Affairs*. (1) Assists the responsible official or his designee on matters pertaining to negative declarations, notices of intent, press releases, and other public notification procedures.

(2) Assists the responsible official or his designee by answering the public's queries on the EIS process and on specific EIS's, and by filling requests for copies of specific documents.

(f) *Offices of the Assistant Administrators and Regional Administrators*. (1) Provides specific policy guidance to their respective offices and assures that those offices establish and maintain adequate administrative procedures to comply with this part.

(2) Monitors the overall timeliness and quality of their respective office's efforts to comply with this part.

(3) Acts as liaison between their offices and the Office of Federal Activities and between their offices and other Assistant Administrators or Regional Administrators on matters of agencywide policy and procedures.

(4) Advises the Administrator and Deputy Administrator through the Office of Federal Activities on projects or activities within their respective areas of responsibilities which involve more than one EPA office, are controversial, are nationally significant, or "pioneer" EPA policy, when these projects have had or should have an EIS prepared on them.

(g) *The Office of Legislation*. (1) Provides the necessary liaison with Congress.

(2) Coordinates the preparation of EIS's required on reports on legislation originating outside EPA. (See § 6.106(d)).

(h) *The Office of Planning and Evaluation*. Coordinates the preparation of EIS's required on EPA legislative proposals. (See § 6.106 (d)).

II. *Responsibilities for Title II Construction Grants Program (Subpart E)*. (a) *Responsible official*. The responsible official for EPA actions covered by this subpart is the Regional Administrator. The responsibilities of the Regional Administrator in addition to those in Appendix B.I. are to:

(1) Assist the Office of Federal Activities in coordinating the training of personnel involved in the review and preparation of NEPA-associated documents.

(2) Require grant applicants and those who have submitted plans for approval to provide the information the regional office requires to comply with these guidelines.

(3) Consult with the Office of Federal Activities concerning works or plans which significantly affect more than one regional office, are controversial, are of national significance or "pioneer" EPA policy, when these works have had or should have had an EIS prepared on them.

(b) *Assistant Administrator*. The responsibilities of the Office of the Assistant Administrator, as described in Appendix B.I, shall be assumed by the Assistant Administrator for Water and Hazardous Materials for EPA actions covered by this subpart.

(c) Oil and Special Materials Control Division, Office of Water Program Operations, coordinates all activities and responsibilities of the Office of Water Program Operations concerned with preparation and review of EIS's. This includes providing technical assistance to the Regional Administrators on EIS's and assisting the Office of Federal Activities in coordinating the training of personnel involved in the review and preparation of NEPA-associated documents.

(d) *Public Affairs Division, Regional Offices*. The responsibilities of the regions' Public Affairs Divisions, in addition to those in Appendix B.I, are to:

(1) Assist the Regional Administrator in the preparation and dissemination of NEPA-associated documents.

(2) Collaborate with the Headquarters Office of Public Affairs to analyze procedures in the regions for public participation and to develop and recommend to the Office of Federal Activities a program to improve those procedures.

III. *Responsibilities for Research and Development Programs (Subpart F)*. The Assistant Administrator for Research and Development, in addition to those responsibilities outlined in Appendix B.I(a), will also assume the responsibilities described in Appendix B.I(f).

IV. *Responsibilities for Solid Waste Management Programs (Subpart G)*. (a) *Responsible Official*. The responsible official for EPA actions covered by this subpart is the Deputy Assistant Administrator for Solid Waste Management Programs. The responsibilities of this official, in addition to those in Appendix B.I(a), are to:

(1) Assist the Office of Federal Activities in coordinating the training of personnel involved in the review and preparation of all NEPA-associated documents.

(2) Advise the Assistant Administrator for Air and Waste Management concerning projects which significantly affect more than one regional office, are controversial, are nationally significant, or "pioneer" EPA policy.

V. *Responsibilities for Special Purpose Facilities and Facility Renovation Programs (Subpart H)*.

(a) *Responsible official*. The responsible official for new construction and modification of special purpose facilities is as follows:

(1) The Chief, Facilities Management Branch, Data and Support Systems Division, shall be the responsible official on all new construction of special purpose facilities and on all improvement and modification projects for which the Facilities Management Branch has received a funding allowance.

(2) The Regional Administrator shall be the responsible official on all improvement and modification projects for which the regional office has received the funding allowance.

(3) The Center Directors shall be the responsible officials on all improvement and modification projects for which the National Environmental Research Centers have received the funding allowance.

(b) The responsibilities of the responsible officials, in addition to those in Appendix B.I, are to:

(1) Ensure that environmental assessments are submitted when requested, that environmental reviews are conducted on all projects, and EIS's are prepared and circulated when there will be significant impacts.

(2) Assist the Office of Federal Activities in coordinating the training of personnel involved in the review and preparation of NEPA-associated documents.

APPENDIX C

DISTRIBUTION AND AVAILABILITY OF DOCUMENTS

I. *Negative Declaration*. (a) The responsible official shall distribute two copies of each negative declaration to:

(1) The appropriate Federal, State and local agencies and to the appropriate State and areawide clearinghouses.

(2) The Office of Legislation, the Office of Public Affairs and the Office of Federal Activities.

(3) The headquarters EIS coordinator for the program office originating the document. When the originating office is a regional office and the action is related to water quality management, one copy should be forwarded to the Oil and Special Materials Control Division, Office of Water Program Operations.

(b) The responsible official shall distribute one copy of each negative declaration to:

(1) Local newspapers and other local mass media.

(2) *Interested persons on request*. If it is not practical to send copies to all interested persons, make the document available through local libraries or post offices, and notify individuals that this action has been taken.

(c) The responsible official shall have a copy of the negative declaration and any documents supporting the negative declaration available for public review at the originating office.

II. *Environmental Impact Appraisal*. (a) The responsible official shall have the environmental impact appraisal available when the negative declaration is distributed and shall forward one copy to the headquarters EIS coordinator for the program office originating the document and to any other Federal or State agency which requests a copy.

(b) The responsible official shall have a copy of the environmental impact appraisal available for public review at the originating office and shall provide copies at cost to persons who request them.

III. *Notice of Intent*. (a) The responsible official shall forward one copy of the notice of intent to:

(1) The appropriate Federal, State and local agencies and to the appropriate State, regional and metropolitan clearing houses.

(2) Potentially interested persons.

(3) The Offices of Federal Activities, Public Affairs and Legislation.

(4) The headquarters Grants Administration Division, Grants Information Branch.

(5) The headquarters EIS coordinator for the program office originating the notice. When the originating office is a regional office and the action is related to water quality management, one copy should be forwarded to the Oil and Special Materials Control Division, Office of Water Program Operations.

IV. *Draft EIS's*. (a) The responsible official shall send two copies of the draft EIS to:

(1) The Office of Federal Activities.

(2) The headquarters EIS coordinator for the program office originating the document. When the originating office is a regional office and the project is related to water quality management, send two copies to the Oil and Special Materials Control Division, Office of Water Program Operations.

(b) If none of the above offices requests any changes within ten (10) working days after notification, the responsible official shall:

(1) Send five copies of the draft EIS to CEQ.

(2) Send two copies of the draft EIS to the Office of Public Affairs and to the Office of Legislation.

(3) Send two copies of the draft EIS to the appropriate offices of reviewing Federal agencies that have special expertise or jurisdiction by law with respect to any impacts involved. CEQ's guidelines (40 CFR 1500.9 and Appendices II and III) list those agencies to which draft EIS's will be sent for official review and comment.

(4) Send two copies of the draft EIS to the appropriate Federal, State, regional and metropolitan clearinghouses.

(5) Send one copy of the draft EIS to public libraries in the project area and interested persons. Post offices, city halls or courthouses may be used as distribution points if public library facilities are not available.

(c) The responsible official shall make a copy of the draft EIS available for public review at the originating office and at the Office of Public Affairs.

V. *Final EIS*. (a) The responsible official shall distribute the final EIS to the following offices, agencies and interested persons:

(1) Five copies to CEQ.

(2) Two copies to the Office of Public Affairs, Legislation and Federal Activities.

(3) Two copies to the headquarters EIS coordinator for the program office originating the document.

(4) One copy to Federal, State and local agencies and interested persons who made substantive comments on the draft EIS or requested a copy of the final EIS.

(5) One copy to a grant applicant.

(b) The responsible official shall make a copy of the final EIS available for public review at the originating office and at the Office of Public Affairs.

VI. *Legislative EIS*. Copies of the legislative EIS shall be distributed by the responsible official according to the procedures in section IV(b) of this appendix. In addition, the responsible official shall send two copies of the EIS to the Office of Federal Activities and the EIS coordinator of the originating office.

[FR Doc.75-9888 Filed 4-11-75;8:45 am]

federal register

WEDNESDAY, MAY 25, 1977

PART VI

THE NATIONAL ARCHIVES OF THE UNITED STATES
1934

THE PRESIDENT

■

ENVIRONMENTAL PROTECTION

EXOTIC ORGANISMS
Executive order restricting introduction into United States.. 26949

FLOODPLAIN MANAGEMENT
Executive order.......... 26951

OFF-ROAD VEHICLES ON PUBLIC LANDS
Executive order restricting use.......... 26959

PROTECTION OF WETLANDS
Executive order.......... 26961

ENVIRONMENTAL IMPACT STATEMENTS
Executive order relating to responsibilities of Council on Environmental Quality.......... 26967

Executive Order 11991 May 24, 1977

RELATING TO PROTECTION AND ENHANCEMENT OF ENVIRONMENTAL QUALITY

By virtue of the authority vested in me by the Constitution and statutes of the United States of America, and as President of the United States of America, in furtherance of the purpose and policy of the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 *et seq.*), the Environmental Quality Improvement Act of 1970 (42 U.S.C. 4371 *et seq.*), and Section 309 of the Clean Air Act, as amended (42 U.S.C. 1857h-7), it is hereby ordered as follows:

Section 1. Subsection (h) of Section 3 (relating to responsibilities of the Council on Environmental Quality) of Executive Order No. 11514, as amended, is revised to read as follows:

"(h) Issue regulations to Federal agencies for the implementation of the procedural provisions of the Act (42 U.S.C. 4332(2)). Such regulations shall be developed after consultation with affected agencies and after such public hearings as may be appropriate. They will be designed to make the environmental impact statement process more useful to decisionmakers and the public; and to reduce paperwork and the accumulation of extraneous background data, in order to emphasize the need to focus on real environmental issues and alternatives. They will require impact statements to be concise, clear, and to the point, and supported by evidence that agencies have made the necessary environmental analyses. The Council shall include in its regulations procedures (1) for the early preparation of environmental impact statements, and (2) for the referral to the Council of conflicts between

ing the implementation of the National
Policy Act of 1969, as amended, and
f the Clean Air Act, as amended, for the
commendation as to their prompt resolution.".

2. The following new subsection is added to
(relating to responsibilities of Federal
s) of Executive Order No. 11514, as amended:

(g) In carrying out their responsibilities under the Act and this Order, comply with the regulations issued by the Council except where such compliance would be inconsistent with statutory requirements.".

Jimmy Carter

THE WHITE HOUSE,
May 24, 1977

[FR Doc.77-15124 Filed 5-24-77;1:45 pm]

Appendix D

federal register

TUESDAY, FEBRUARY 4, 1975
WASHINGTON, D.C.
Volume 40 ■ Number 24
PART II

THE NATIONAL ARCHIVES OF THE UNITED STATES • 1934 •

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

■

NATIONAL REGISTER OF HISTORIC PLACES

Advisory Council on Historic Preservation

Protection of Properties on the National Register; Procedures for Compliance

374<

DEPARTMENT OF THE INTERIOR

National Park Service

NATIONAL REGISTER OF HISTORIC PLACES

Pursuant to the National Historic Preservation Act of 1966 (80 Stat. 915, 16 U.S.C. 470) the National Park Service, Department of the Interior has undertaken steps to implement the purposes of that act through: (1) Expansion of the National Register of Historic Places, (2) initiating a program of grants-in-aid for historic preservation, and (3) adoption of procedures and criteria for furthering the Nation's historic preservation program.

It is the purpose of this notice, through publication of information and materials included herein, to apprise the public, as well as governmental agencies, associations, and all other organizations and individuals interested in historic preservation of the implementing actions that have been taken in order that there will be a greater awareness of the means by which properties of State and local historical significance may be nominated for placement in the National Register and of the criteria used in evaluating the properties. The notice includes a list of the properties included in the National Register of Historic Places through December 31, 1974.

RUSSELL E. DICKENSON,
Deputy Director,
National Park Service.

THE NATIONAL HISTORIC PRESERVATION ACT

THE NATIONAL REGISTER OF HISTORIC PLACES AND PROCEDURES FOR REGISTRATION

A. *Introduction*. In the National Historic Preservation Act of 1966, 80 Stat. 915, 16 U.S.C. 470, the Congress found and declared:

(a) That the spirit and direction of the Nation are founded upon and reflected in its historic past;

(b) That the historical and cultural foundations of the Nation should be preserved as a living part of our community life and development in order to give a sense of orientation to the American people.

(c) That, in the face of ever-increasing extensions of urban centers, highways, and residential, commercial, and industrial developments, the present governmental and nongovernmental historic preservation programs and activities are inadequate to insure future generations a genuine opportunity to appreciate and enjoy the rich heritage of our Nation; and

(d) That, although the major burdens of historic preservation have been borne and major efforts initiated by private agencies and individuals, and both should continue to play a vital role, it is nevertheless necessary and appropriate for the Federal Government to accelerate its historic preservation programs and activities, to give maximum encouragement to agencies and individuals undertaking preservation by private means, and to assist State and local governments and the National Trust for Historic Preservation in the United States to expand and accelerate their historic preservation programs and activities.

In order to accomplish these purposes, the National Historic Preservation Act provided for three significant innovations: An expanded National Register of Historic Places, a program of grants-in-aid for historic preservation, and an Advisory Council on Historic Preservation empowered to comment upon all undertakings licensed, assisted, or carried out by the Federal Government that have an effect upon properties in the National Register.

Official notice is hereby given to the public and government agencies of the opportunities and restrictions provided by the National Historic Preservation Act. Detailed administrative procedures for the program may be found in the manuals, "Historic Preservation Grants-in-Aid: Policies and Procedures," and "The National Register Program, Volume 2: How to Complete National Register Forms" January 1975 (U.S. Department of the Interior, National Park Service, Washington, D.C.). (Volume 1, "State and Federal Guidelines" to be published later in 1975.)

B. *Expanding the National Register of Historic Places*. The Act authorizes the Secretary of the Interior to expand and maintain a national register of districts, sites, buildings, structures, and objects significant in American history, architecture, archeology, and culture. Previously, the National Register included only nationally significant properties that are historical or archeological units of the National Park System or that have been declared eligible for designation as National Historic Landmarks. Because they must meet exacting criteria of national significance, such properties are few in number. The National Historic Preservation Act of 1966 provides a means for States to nominate properties of State and local significance for placement in the National Register.

The following officials have been designated by their Governors to act as State Historic Preservation Officers responsible for State activities under the National Historic Preservation Act:

STATE HISTORIC PRESERVATION OFFICERS

ALABAMA

Chairman, Alabama Historical Commission, Alabama Department of Archives and History, Archives and History Building, Montgomery, Alabama 36104.

ALASKA

Director, Department of Natural Resources, Division of Parks, 323 East Fourth Avenue, Anchorage, Alaska 99501.

ARIZONA

Director, State Parks Board, 1688 West Adams, Phoenix, Arizona 85007.

ARKANSAS

Director, Arkansas Department of Parks and Tourism, State Capitol, Room 149, Little Rock, Arkansas 72201.

CALIFORNIA

Director, Department of Parks & Recreation, State Resources Agency, P.O. Box 2390, Sacramento, California 95811.

COLORADO

Chairman, State Historical Society, Colorado State Museum, 200 14th Avenue, Denver, Colorado 80203.

CONNECTICUT

Director, Connecticut Historical Commission, 59 South Prospect Street, Hartford, Connecticut 06106.

DELAWARE

Director, Division of Historical and Cultural Affairs, Department of State, Dover, Delaware 19901.

FLORIDA

Director, Division of Archives, History, and Records Management, Department of State, 401 East Gaines Street, Tallahassee, Florida 32304.

GEORGIA

Chief, Georgia Department of Natural Resources, 710 Trinity-Washington Building, 270 Washington Street, S.W., Atlanta, Georgia 30334.

HAWAII

Chairman, Department of Land and Natural Resources, State of Hawaii, P.O. Box 621, Honolulu, Hawaii 96809.

IDAHO

Director, Idaho Historical Society, 610 North Julia Davis Drive, Boise, Idaho 83706.

ILLINOIS

Director, Department of Conservation, 602 State Office Building, 400 South Spring Street, Springfield, Illinois 62706.

INDIANA

Director, Department of Natural Resources, State of Indiana, 608 State Office Building, Indianapolis, Indiana 46204.

IOWA

Director, Division of Historic Preservation, B-13, MacLean Hall, Iowa City, Iowa 52242.

KANSAS

Executive Director, Kansas State Historical Society, 120 West 10th Street, Topeka, Kansas 66612.

KENTUCKY

Director, Kentucky Heritage Commission, 401 Wapping Street, Frankfort, Kentucky 40601.

LOUISIANA

Director, Department of Art, Historical and Cultural Preservation, Old State Capitol, Baton Rouge, Louisiana 70801.

MAINE

Director, Maine Historical Preservation Commission, 31 Western Avenue, Augusta, Maine 04330.

MARYLAND

Director, Maryland Historical Trust, 2525 Riva Road, Annapolis, Maryland 21401.

MASSACHUSETTS

Secretary of the Commonwealth, Chairman, Massachusetts Historical Commission, 40 Beacon Street, Boston, Massachusetts 02108.

MICHIGAN

Director, Michigan History Division, Department of State, Lansing, Michigan 48918.

MINNESOTA

Director, Minnesota Historical Society, 690 Cedar Street, St. Paul, Minnesota 55101.

375<

MISSISSIPPI

Director, State of Mississippi Department of Archives and History, P.O. Box 571, Jackson, Mississippi 39205.

MISSOURI

Director, Missouri State Park Board, P.O. Box 176, 1204 Jefferson Building, Jefferson City, Missouri 65101.

MONTANA

Administrator, Recreation and Parks Division, Department of Fish and Game, State of Montana, Mitchell Building, Helena, Montana 59601.

NEBRASKA

Director, Nebraska State Historical Society, 1500 R Street, Lincoln, Nebraska 68501.

NEVADA

Administrator, Division of State Parks, 201 South Fall Street, Carson City, Nevada 89701.

NEW HAMPSHIRE

Commissioner, Department of Resources and Economic Development, P.O. Box 856, Concord, New Hampshire 03301.

NEW JERSEY

Commissioner, Department of Environmental Protection, P.O. Box 1420, Trenton, New Jersey 08625.

NEW MEXICO

State Historic Preservation Officer, State Capitol, 403 Capitol Building, Santa Fe, New Mexico 87501.

NEW YORK

Commissioner, Parks and Recreation, Room 303, South Swan Street Building, Albany, New York 12223.

NORTH CAROLINA

Director, Division of Archives and History, Department of Cultural Resources, 109 East Jones Street, Raleigh, North Carolina 27611.

NORTH DAKOTA

Superintendent, State Historical Society of North Dakota, Liberty Memorial Building, Bismarck, North Dakota 58501.

OHIO

Director, Ohio Historical Society, Interstate #71 at 17th Avenue, Columbus, Ohio 43211.

OKLAHOMA

State Historic Preservation Officer, 117 East Oklahoma Avenue, Route 1, Guthrie, Oklahoma 73044.

OREGON

State Parks Superintendent, 300 State Highway Building, Salem, Oregon 97310.

PENNSYLVANIA

Executive Director, Pennsylvania Historical and Museum Commission, Box 1026, Harrisburg, Pennsylvania 17120.

RHODE ISLAND

Director, Rhode Island Department of Community Affairs, 150 Washington Street, Providence, Rhode Island 02903.

SOUTH CAROLINA

Director, State Archives Department, 1430 Senate Street, Columbia, South Carolina 29211.

SOUTH DAKOTA

Cultural Preservation Director, Department of Education and Cultural Affairs, Office of Cultural Preservation, State Capitol, Pierre, South Dakota 57501.

TENNESSEE

Executive Director of the Tennessee Historical Commission, 170 Second Avenue North, Nashville, Tennessee 37201.

TEXAS

Executive Director, Texas State Historical Survey Committee, P.O. Box 12276, Capitol Station, Austin, Texas 78711.

UTAH

Director, Division of State History, 603 East South Temple, Salt Lake City, Utah 84102.

VERMONT

Director, Vermont Division of Historic Sites, Pavilion Building, Montpelier, Vermont 05602.

VIRGINIA

Executive Director, Virginia Historic Landmarks Commission, 221 Governor Street, Richmond, Virginia 23219.

WASHINGTON

Director, Washington State Parks and Recreation Commission, P.O. Box 1128, Olympia, Washington 98504.

WEST VIRGINIA

State Historic Preservation Officer, West Virginia Antiquities Commission, Old Mountainlair, West Virginia University, Morgantown, West Virginia 26506.

WISCONSIN

Director, State Historical Society of Wisconsin, 816 State Street, Madison, Wisconsin 53706.

WYOMING

Director, Wyoming Recreation Commission, 604 East 25th Street, Box 309, Cheyenne, Wyoming 82001.

DISTRICT OF COLUMBIA

Acting Director, Office of Housing & Community Development, Room 112-A, District Building, 14th & E Streets NW, Washington, D.C. 20004.

AMERICAN SAMOA

Executive Secretary, Environmental Quality Commission, Office of the Governor, Pago Pago, American Samoa 96920.

COMMONWEALTH OF PUERTO RICO

State Historic Preservation Officer, Institute of Puerto Rico Culture, Apartado 4184, San Juan, Puerto Rico 00905.

GUAM

Director, Department of Commerce, Government of Guam, P.O. Box 682, Agana, Guam 96910.

TRUST TERRITORY

Chief, Land Resources Branch, Trust Territory of the Pacific Islands, Saipan, Mariana Islands 96950.

VIRGIN ISLANDS

Planning Director, Virgin Islands Planning Board, Charlotte Amalie, St. Thomas, Virgin Islands 00801.

Under Executive 11593 agencies of the Executive branch of the government shall: (1) Administer cultural properties under their control, and (2) initiate measures necessary to preserve, restore, and maintain federally owned sites, structures, and objects of historical, architectural, and archeological significance.

The following are the Federal representatives responsible for implementing this Executive Order:

DEPARTMENT OF AGRICULTURE

Director, Division of Recreation, Forest Service, Department of Agriculture, Washington, D.C. 20250.

DEPARTMENT OF COMMERCE

Deputy Director for Operations, Office of Administrative Services, Department of Commerce, Washington, D.C. 20230.

DEPARTMENT OF DEFENSE

Director, Real Property and Natural Resources Division, Office of the Assistant Secretary of Defense (Installations and Logistics), Washington, D.C. 20301.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Director, Office of Facilities Engineering, Department of Health, Education, and Welfare, Washington, D.C. 20201.

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Assistant Secretary for Community Planning and Development, Department of Housing and Urban Development, Washington, D.C. 20410.

DEPARTMENT OF THE INTERIOR

Deputy Assistant Secretary for Fish and Wildlife and Parks, Department of the Interior, Washington, D.C. 20240.

DEPARTMENT OF JUSTICE

Administrative Service Program Staff, Office of Management and Finance, Department of Justice, Washington, D.C. 20530.

DEPARTMENT OF TRANSPORTATION

Community Affairs Specialist, Office of Consumer Affairs, Department of Transportation, Washington, D.C. 20590.

DEPARTMENT OF THE TREASURY

Director of Administrative Programs, Department of the Treasury, Washington, D.C. 20220.

INDEPENDENT AGENCIES

Publications Editor, Appalachian Regional Commission, 1666 Connecticut Avenue, NW., Washington, D.C. 20235.

Director, Data and Support Systems Division, Environmental Protection Agency, Washington, D.C. 20460.

Secretary, Federal Communications Commission, Washington, D.C. 20554.

Advisor of the Chairman, Federal Power Commission, Washington, D.C. 20426.

Historian, Project Environment and Conservation, Federal Power Commission, 825 North Capitol Street, Washington, D.C. 20426.

Historic Preservation Office, General Services Administration, Washington, D.C. 20405.

Chief, Section of Administrative Services, Interstate Commerce Commission, Washington, D.C. 20423.

Director, NASA History Program Office, National Aeronautics and Space Administration, Washington, D.C. 20546.

Landmarks Coordinator, National Capital Planning Commission, 1325 G Street, N.W., Washington, D.C. 20005.

Special Assistant to the Director, National Science Foundation, Washington, D.C. 20550.

Administrator, Small Business Administration, 1441 L Street, N.W., Washington, D.C. 20416.

Special Assistant to the Secretary, Smithsonian Institution, Washington, D.C. 20560.

Director of Reservoir Properties, Tennessee Valley Authority, 200 New Sprankle Building, Knoxville, Tennessee 37902.

376<

Assistant for Economic and Community Affairs, Office of the General Manager, Mail Station CA-311, U.S. Atomic Energy Commission, Washington, D.C. 20545.

Program Manager, Logistics and Engineering Department, U.S. Postal Service, L'Enfant Plaza West, Washington, D.C. 20260.

Historian, Veterans Administration, 810 Vermont Avenue, N.W., Washington, D.C. 20420.

Chief, Planning and Reports, International Boundary and Water Commission, United States and Mexico, 200 IBWC Building, 4110 Rio Bravo, El Paso, Texas 79902.

The State Historic Preservation Officer is responsible for the development and implementation of a comprehensive State Historic Preservation Plan, based clearly on the State's history and established in conformance with local, State and Federal legislation and mechanisms, and approved by the Secretary of the Interior. The State Historic Preservation Officer supervises a professional staff in conducting a statewide survey of historic resources addressed to every aspect of the State's history. From this continuing inventory of historic resources, an integral part of the State Historic Preservation Plan, the State Historic Preservation Officer may nominate properties for inclusion in the National Register of Historic Places. The nominated properties which are approved by the National Park Service are entered in the National Register of Historic Places by the Director, Office of Archeology and Historic Preservation, National Park Service.

The following criteria shall be used by the States in evaluating properties for nomination to the National Register of Historic Places and by the National Park Service in reviewing State nominations.

National Register Criteria of Evaluation

The quality of significance in American history, architecture, archeology, and culture is present in districts, sites, buildings, structures, and objects of State and local importance that possess integrity of location design, setting, materials, workmanship, feeling, and association, and:

1. That are associated with events that have made a significant contribution to the broad patterns of our history; or

2. That are associated with the lives of persons significant in our past; or

3. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

4. That have yielded, or may be likely to yield, information important in prehistory or history.

Criteria considerations. Ordinarily cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

(a) A religious property deriving primary significance from architectural or artistic distinction or historical importance.

(b) A building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event.

(c) A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building directly associated with his productive life.

(d) A cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events.

(e) A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived.

(f) A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own historical significance.

(g) A property achieving significance within the past 50 years if it is of exceptional importance.

C. *Grants for historic preservation.* The National Historic Preservation Act also authorizes a program of grants-in-aid to States for comprehensive statewide historic site surveys and preservation plans. Grants are also authorized to States, local governments, private organizations, and individuals for preservation projects in accordance with an approved statewide plan. All grants are made through the States. The State Liaison Officer may then distribute the funds to other approved public and private recipients. Funds may be used for acquisition, protection, rehabilitation, restoration, and reconstruction of properties included in the National Register of Historic Places.

ADVISORY COUNCIL ON HISTORIC PRESERVATION

Procedures for The Protection of Historic and Cultural Properties

Properties included in, or eligible for, inclusion in the National Register are afforded protection under the National Historic Preservation Act of 1966 and Executive Order 11593, May 13, 1971, "Protection and Enhancement of the Cultural Environment." The Advisory Council on Historic Preservation has prescribed procedures for Federal agencies to follow. In accordance with these authorities these "Procedures for Protection of Historic and Cultural Properties" were published in the FEDERAL REGISTER of January 25, 1974 (39 FR 3366), and had been codified in 36 CFR Part 800. These procedures are set forth below:

Procedures for the Protection of Historic and Cultural Properties in Accordance With Section 106 of the National Historic Preservation Act and Sections 1(3) and 2(b) of Executive Order 11593

800.1 *Purpose and authorities.* The National Historic Preservation Act of 1966 created the Advisory Council on Historic Preservation, an independent agency of the Executive branch of the Federal Government, to advise the President and Congress on matters involving historic preservation. Its members are the Secretary of the Interior, the Secretary of Housing and Urban Development, the Secretary of the Treasury, the Secretary of Commerce, the Attorney General, the Secretary of Transportation, the Secretary of Agriculture, the Administrator of the General Services Administration, the Secretary of the Smithsonian Institution, the Chairman of the National Trust for Historic Preservation, and 10 citizen members appointed by the President on the basis of their outstanding service in the field of historic preservation.

The Council reviews Federal, federally assisted, and federally licensed undertakings affecting cultural properties as defined herein, in accordance with the following authorities:

(a) *Section 106 of the National Historic Preservation Act.* Section 106 requires that Federal, federally assisted, and federally licensed undertakings affecting properties included in the National Register of Historic Places be submitted to the Council for review and comment prior to the approval of any such undertaking by the Federal agency.

(b) *Section 1(3) of Executive Order 11593, May 13, 1971, "Protection and Enhancement of the Cultural Environment."* Section 1(3) requires that Federal agencies, in consultation with the Council, establish procedures regarding the preservation and enhancement of nonfederally owned historic and cultural properties in the execution of their plans and programs. After soliciting consultation with the Federal agencies, the Advisory Council has adopted procedures, set forth in 36 CFR 800.2 through 800.10, to achieve this objective and Federal agencies should fulfill their responsibilities under section 1(3) by following these procedures. The Council further recommends that Federal agencies use these procedures as a guide in the development, in consultation with the Council, of their required internal procedures.

(c) *Section 2(b) of Executive Order 11593, May 13, 1971, "Protection and Enhancement of the Cultural Environment."* Federal agencies are required, by section 2(a) of the Executive Order, to locate, inventory, and nominate properties under their jurisdiction or control to the National Register. Until such processes are complete, Federal agencies must submit proposals for the transfer, sale, demolition, or substantial alteration of federally owned properties eligible for inclusion in the National Register to the

Council for review and comment. Federal agencies must continue to comply with section 2(b) review requirements, even after the initial inventory is complete, when they obtain jurisdiction or control over additional properties that are eligible for inclusion in the National Register or when properties under their jurisdiction or control are found to be eligible for inclusion in the National Register subsequent to the initial inventory.

800.2 *Coordination with agency requirements under the National Environmental Policy Act*. Section 101(b)(4) of the National Environmental Policy Act (NEPA) declares that one objective of the national environmental policy is to "preserve important historic, cultural, and natural aspects of our national heritage and maintain, wherever possible, an environment which supports diversity and variety of individual choice." In order to meet this objective, the Advisory Council instructs Federal agencies to coordinate NEPA compliance with the separate responsibilities of the National Historic Preservation Act and Executive Order 11593 to ensure that historic and cultural resources are given proper consideration in the preparation of environmental impact statements. Agency obligations pursuant to the National Historic Preservation Act and Executive Order 11593 are independent from NEPA and must be complied with even when an environmental impact statement is not required. However, where both NEPA and the National Historic Preservation Act or Executive Order 11593 are applicable, the Council on Environmental Quality, in its Guidelines for the Preparation of Environmental Impact Statements (40 CFR Part 1500), directs that compliance with section 102(2)(C) of NEPA should, to the extent possible, be combined with other statutory obligations—such as the National Historic Preservation Act and Executive Order 11593—to yield a single document which meets all applicable requirements. To achieve this objective, Federal agencies should undertake, to the fullest extent possible, compliance with the procedures set forth below whenever properties included in or eligible for inclusion in the National Register are involved in a project to ensure that obligations under the National Historic Preservation Act and Executive Order 11593 are fulfilled during the preparation of a draft environmental impact statement required under section 102(2)(C) of NEPA. The Advisory Council recommends that compliance with these procedures be undertaken at the earliest stages of the environmental impact statement process to expedite review of the statement. Statements on projects affecting properties included in or eligible for inclusion in the National Register should be sent directly to the Advisory Council for review. All statements involving historic, architectural, archeological, or cultural resources, whether or not included in or eligible for inclusion in the National Register, should be submitted to the Department of Interior for review.

800.3 *Definitions*. As used in these procedures:

(a) "National Historic Preservation Act" means Public Law 89-665, approved October 15, 1966, an "Act to establish a program for the preservation of additional historic properties throughout the Nation and for other purposes," 80 Stat. 915, 16 U.S.C. 470, as amended, 84 Stat. 204 (1970) and 87 Stat. 139 (1973) hereinafter referred to as "the Act."

(b) "Executive Order" means Executive Order 11593, May 13, 1971, "Protection and Enhancement of the Cultural Environment," 36 FR 8921, 16 U.S.C. 470.

(c) "Undertaking" means any Federal action, activity, or program, or the approval, sanction, assistance, or support of any other action, activity or program, including but not limited to:

(1) Recommendations or favorable reports relating to legislation, including requests for appropriations. The requirement for following these procedures applies to both: Agency recommendations on their own proposals for legislation and agency reports on legislation initiated elsewhere. In the latter case only the agency which has primary responsibility for the subject matter involved will comply with these procedures.

(2) New and continuing projects and program activities: directly undertaken by Federal agencies; or supported in whole or in part through Federal contracts, grants, subsidies, loans, or other forms of funding assistance; or involving a Federal lease, permit, license, certificate, or other entitlement for use.

(3) The making, modification, or establishment of regulations, rules, procedures, and policy.

(d) "National Register" means the National Register of Historic Places, which is a register of districts, sites, buildings, structures, and objects, significant in American history, architecture, archeology, and culture, maintained by the Secretary of the Interior under authority of section 2(b) of the Historic Sites Act of 1935 (49 Stat. 666, 16 U.S.C. 461) and section 101(a)(1) of the National Historic Preservation Act. The National Register is published in its entirety in the FEDERAL REGISTER each year in February. Addenda are published on the first Tuesday of each month.

(e) "National Register property" means a district, site, building, structure, or object included in the National Register.

(f) "Property eligible for inclusion in the National Register" means any district, site, building, structure, or object which the Secretary of the Interior determines is likely to meet the National Register Criteria. As these determinations are made, a listing is published in the FEDERAL REGISTER on the first Tuesday of each month, as a supplement to the National Register.

(g) "Decision" means the exercise of agency authority at any stage of an undertaking where alterations might be made in the undertaking to modify its impact upon historic and cultural properties.

(h) "Agency Official" means the head of the Federal agency having responsibility for the undertaking or a subordinate employee of the Federal agency to whom such authority has been delegated.

(i) "Chairman" means the Chairman of the Advisory Council on Historic Preservation, or such member designated to act in his stead.

(j) "Executive Director" means the Executive Director of the Advisory Council on Historic Preservation established by Section 205 of the Act, or his designated representative.

(k) "State Historic Preservation Officer" means the official within each State, authorized by the State at the request of the Secretary of the Interior, to act as liaison for purposes of implementing the Act, or his designated representative.

"(l) "Secretary" means the Secretary of the Interior, or his designee authorized to carry out the responsibilities of the Secretary of the Interior under Executive Order 11593.

800.4 *Agency procedures*. At the earliest stage of planning or consideration of a proposed undertaking, including comprehensive or area-wide planning in which provision may be made for an undertaking or an undertaking may be proposed, the Agency Official shall take the following steps to comply with the requirements of section 106 of the National Historic Preservation Act and sections 1(3) and 2(b) of Executive Order 11593.

(a) *Identification of resources*. As early as possible and in all cases prior to agency decision concerning an undertaking, the Agency Official shall identify properties located within the area of the undertaking's potential environmental impact that are included in or eligible for inclusion in the National Register.

(1) To identify properties included in the National Register, the Agency Official shall consult the National Register, including monthly supplements.

(2) To identify properties eligible for inclusion in the National Register, the Agency Official shall, in consultation with the appropriate State Historic Preservation Officer, apply the National Register Criteria, set forth in 36 CFR 800.10, to all properties possessing historical, architectural, archeological, or cultural value located within the area of the undertaking's potential environmental impact. If the Agency Official determines that a property appears to meet the Criteria, or if it is questionable whether the Criteria are met, the Agency Official shall request, in writing, an opinion from the Secretary of the Interior respecting the property's eligibility for inclusion in the National Register. The Secretary of the Interior's opinion respecting the eligibility of a property for inclusion in the National Register shall be conclusive for the purposes of these procedures.

(b) *Determination of effect*. For each property included in or eligible for inclusion in the National Register that is located within the area of the undertaking's potential environmental impact, the Agency Official, in consultation with the

State Historic Preservation Officer, shall apply the Criteria of Effect, set forth in 36 CFR 800.8, to determine whether the undertaking has an effect upon the property. Upon applying the Criteria and finding no effect, the undertaking may proceed. The Agency Official shall keep adequate documentation of a determination of no effect.

(c) *Effect established*. Upon finding that the undertaking will have any effect upon a property included in or eligible for inclusion in the National Register, the Agency Official, in consultation with the State Historic Preservation Officer, shall apply the Criteria of Adverse Effect, set forth in 36 CFR 800.9, to determine whether the effect of the undertaking is adverse.

(d) *Finding of no adverse effect*. Upon finding the effect not to be adverse, the Agency Official shall forward adequate documentation of the determination, including evidence of the views of the State Historic Preservation Officer, to the Executive Director for review. Unless the Executive Director notes an objection to the determination within 45 days after receipt of adequate documentation, the Agency Official may proceed with the undertaking.

(e) *Finding of adverse effect*. Upon finding the effect to be adverse or upon notification that the Executive Director does not accept a determination of no adverse effect, the Agency Official shall: (1) Request, in writing, the comments of the Advisory Council; (2) notify the State Historic Preservation Officer of this request; (3) prepare a preliminary case report; and (4) proceed with the consultation process set forth in 36 CFR 800.5.

(f) *Preliminary case report*. Upon requesting the comments of the Advisory Council, the Agency Official shall provide the Executive Director and the State Historic Preservation Officer with a preliminary case report, containing all relevant information concerning the undertaking. The Agency Official shall obtain such information and material from any applicant, grants or other beneficiary involved in the undertaking as may be required for the proper evaluation of the undertaking, its effects, and alternate courses of action.

800.5 *Consultation process*—(a) *Response to request for comments*. Upon receipt of a request for Advisory Council comments pursuant to 36 CFR 800.4(e), the Executive Director shall acknowledge the request and shall initiate the consultation process.

(b) *On-site inspection*. At the request of the Agency Official, the State Historic Preservation Officer, or the Executive Director, the Agency Official shall conduct an on-site inspection with the Executive Director, the State Historic Preservation Officer and such other representatives of national, State, or local units of government and public and private organizations that the consulting parties deem appropriate.

(c) *Public information meeting*. At the request of the Agency Official, the State Historic Preservation Officer, or the Executive Director, the Executive Director shall conduct a meeting open to the public, where representatives of national, State, or local units of government, representatives of public or private organizations, and interested citizens can receive information and express their views on the undertaking, its effects on historic and cultural properties, and alternate courses of action. The Agency Official shall provide adequate facilities for the meeting and shall afford appropriate notice to the public in advance of the meeting.

(d) *Consideration of alternatives*. Upon review of the pending case and subsequent to any on-site inspection and any public information meeting, the Executive Director shall consult with the Agency Official and State Historic Preservation Officer to determine whether there is a feasible and prudent alternative to avoid or satisfactorily mitigate any adverse effect.

(e) *Avoidance of adverse effect*. If the Agency Official, the State Historic Preservation Officer, and the Executive Director select and unanimously agree upon a feasible and prudent alternative to avoid the adverse effect of the undertaking, they shall execute a Memorandum of Agreement acknowledging avoidance of adverse effect. This document shall be forwarded to the Chairman for review pursuant to 36 CFR 800.6(a).

(f) *Mitigation of adverse effect*. If the consulting parties are unable to unanimously agree upon a feasible and prudent alternative to avoid any adverse effect, the Executive Director shall consult with the Agency Official and the State Historic Preservation Officer to determine whether there is a feasible and prudent alternative to satisfactorily mitigate the adverse effect of the undertaking. Upon finding and unanimously agreeing to such an alternative, they shall execute a Memorandum of Agreement acknowledging satisfactory mitigation of adverse effect. This document shall be forwarded to the Chairman for review pursuant to 36 CFR 8006(a).

(g) *Memorandum of Agreement*. It shall be the responsibility of the Executive Director to prepare each Memorandum of Agreement required under these procedures. In preparation of such a document the Executive Director may request the Agency Official to prepare a proposal for inclusion in the Memorandum, detailing actions to be taken to avoid or mitigate the adverse effect.

(h) *Failure to avoid or mitigate adverse effect*. Upon the failure of consulting parties to find and unanimously agree upon a feasible and prudent alternative to avoid or satisfactorily mitigate the adverse effect, the Executive Director shall request the Chairman to schedule the undertaking for consideration at the next Council meeting and notify the Agency Official of the request. Upon notification of the request, the Agency Official shall delay further processing of the undertaking until the Council has transmitted its comments or the Chairman has given notice that the undertaking will not be considered at a Council meeting.

800.6 *Council procedures*—(a) *Review of Memorandum of Agreement*. Upon receipt of a Memorandum of Agreement acknowledging avoidance of adverse effect or satisfactory mitigation of adverse effect, the Chairman shall institute a 30-day review period. Unless the Chairman shall notify the Agency Official that the matter has been placed on the agenda for consideration at a Council meeting, the memorandum shall become final: (1) Upon the expiration of the 30-day review period with no action taken; or (2) when signed by the Chairman. Memoranda duly executed in accordance with these procedures shall constitute the comments of the Advisory Council. Notice of executed Memoranda of Agreement shall be published in the FEDERAL REGISTER monthly.

(b) *Response to request for consideration at Council meeting*. Upon receipt of a request from the Executive Director for consideration of the proposed undertaking at a Council meeting, the Chairman shall determine whether or not the undertaking will be considered and notify the Agency Official of his decision. To assist the Chairman in this determination, the Agency Official and the State Historic Preservation Officer shall provide such reports and information as may be required. If the Chairman decides against consideration at a Council meeting, he will submit a written summary of the undertaking and his decision to each member of the Council. If any member of the Council notes an objection to the decision within 15 days of the Chairman's decision, the undertaking will be scheduled for consideration at a Council meeting. If the Council members have no objection, the Chairman shall notify the Agency Official at the end of the 15-day period that the undertaking may proceed.

(c) *Decision to consider the undertaking*. Upon determination that the Council will consider an undertaking, the Chairman shall: (1) Schedule the matter for consideration at a regular meeting no less than 60 days from the date the request was received, or in exceptional cases, schedule the matter for consideration in an unassembled or special meeting; (2) notify the Agency Official and the State Historic Preservation Officer of the date on which comments will be considered; and (3) authorize the Executive Director to prepare a case report.

(d) *Content of the case report*. For purposes of arriving at comments, the Advisory Council prescribes that certain reports be made available to it and accepts reports and statements from other interested parties. Specific informational requirements are enumerated below. Generally, the requirements represent an explication or elaboration of principles contained in the Criteria of Effect and in the Criteria of Adverse Effect. The Council notes, however, that the Act recognizes historical and cultural resources should be preserved "as a living part of our community life and development." Consequently, in arriving at final comments, the Council considers those elements in an undertaking that have relevance beyond historical and cultural concerns. To assist it in weighing the public interest, the Council welcomes information not only bearing upon physical, sensory, or esthetic effects but also information concerning economic, social, and other benefits or detriments that will result from the undertaking.

(e) *Elements of the case report.* The report on which the Council relies for comment shall consist of:

(1) A report from the Executive Director to include a verification of the legal and historical status of the property; an assessment of the historical, architectural, archeological, or cultural significance of the property; a statement indicating the special value of features to be most affected by the undertaking; an evaluation of the total effect of the undertaking upon the property; a critical review of any known feasible and prudent alternatives; and recommendations to remove or mitigate the adverse effect;

(2) A report from the Agency Official requesting comment to include a general discussion and chronology of the proposed undertaking; when appropriate, an account of the steps taken to comply with section 102(2)(A) of the National Environmental Policy Act of 1969 (83 Stat. 852, 42 U.S.C. 4321): an evaluation of the effect of the undertaking upon the property, with particular reference to the impact on the historic, architectural, archeological and cultural values; steps taken or proposed by the agency to take into account, avoid, or mitigate adverse effects of the undertaking; a thorough discussion of alternate courses of action; and, if applicable and available, a copy of the draft environmental statement prepared in compliance with section 102(2)(C) of the National Environmental Policy Act of 1969;

(3) A report from any other Federal agency having under consideration an undertaking that will concurrently or ultimately affect the property, including a general description and chronology of that undertaking and discussion of the relation between that undertaking and the undertaking being considered by the Council;

(4) A report from the State Historic Preservation Officer to include an assessment of the significance of the property; an identification of features of special value; and evaluation of the effect of the undertaking upon the property and its specific components; an evaluation of known alternate courses of action; a discussion of present or proposed participation of State and local agencies or organizations in preserving or assisting in preserving the property; an indication of the support or opposition of units of government and public and private agencies and organizations within the State; and the recommendations of his office;

(5) A report by an applicant or potential recipient when the Council considers comments upon an application for a contract, grant, subsidy, loan, or other form of funding assistance, or an application for a Federal lease, permit, license, certificate, or other entitlement for use. Arrangements for the submission and presentation of reports by applicants or potential recipients shall be made through the Agency Official having jurisdiction in the matter; and

(6) Other pertinent reports, statements, correspondence, transcripts, minutes, and documents received by the Council from any and all parties, public or private. Reports submitted pursuant to this section should be received by the Council at least two weeks prior to a Council meeting.

(f) *Coordination of case reports and statements.* In considerations involving more than one Federal department, either directly or indirectly, the Agency Official requesting comment shall act as a coordinator in arranging for a full assessment and discussion of all interdepartmental facets of the problem and prepare a record of such coordination to be made available to the Council. At the request of the Council, the State Historic Preservation Officer shall notify appropriate governmental units and public and private organizations within the State of the pending consideration of the undertaking by the Council, and coordinate the presentation of written statements to the Council.

(g) *Council meetings.* The Council does not hold formal hearings to consider comments under these procedures. Two weeks notice shall be given, by publication in the FEDERAL REGISTER, of all meetings involving Council review of Federal undertakings in accordance with these procedures. Reports and statements will be presented to the Council in open session in accordance with a prearranged agenda. Regular meetings of the Council generally occur on the first Wednesday and Thursday of February, May, August, and November.

(h) *Oral statements to the Council.* A schedule shall provide for oral statements from the Executive Director; the referring Agency Official presently or potentially involved; the applicant or potential recipient, when appropriate; the State Historic Preservation Officer; and representatives of national, State, or local units of government and public and private organizations. Parties wishing to make oral remarks shall submit written statements of position in advance to the Executive Director.

(i) *Comments by the Council.* The comments of the Council, issued after consideration of an undertaking at a Council meeting, shall take the form of a three-part statement, including an introduction, findings, and a conclusion. The statement shall include notice to the Agency Official of the report required under 36 CFR 800.6(j) of these procedures. Comments shall be made to the head of the Federal Agency requesting comment or having responsibility for the undertaking. Immediately thereafter, the comments of the Council will be forwarded to the President and the Congress as a special report under authority of section 202(b) of the Act and published as soon as possible in the FEDERAL REGISTER. Comments shall be available to the public upon receipt of the comments by the head of the Federal agency.

(j) *Report of agency action in response to Council comments.* When a final decision on the undertaking is reached by the Federal Agency, the Agency Official shall submit a written report to the Council containing a description of actions taken by the Federal Agency subsequent to the Council's comments; a description of actions taken by other parties pursuant to the actions of the Federal Agency; and the ultimate effect of such actions on the property involved. The Council may request supplementary reports if the nature of the undertaking requires them.

(k) *Record of the Council.* The records of the Council shall consist of a record of the proceedings at each meeting, the case report prepared by the Executive Director, and all other reports, statements, transcripts, correspondence, and documents received.

(l) *Continuing review jurisdiction.* When the Council has commented upon an undertaking pursuant to 36 CFR 800.6 such as a comprehensive or area-wide plan that by its nature requires subsequent action by the Federal Agency, the Council will consider its comments or approval to extend only to the undertaking as reviewed. The Agency Official shall ensure that subsequent action related to the undertaking is submitted to the Council for review in accordance with 36 CFR 800.4(c) of these procedures when that action is found to have an adverse effect on a property included in or eligible for inclusion in the National Register.

800.7 *Other powers of the Council*—(a) *Comment or report upon non-Federal undertaking.* The Council will exercise the broader advisory powers, vested by section 202(a)(1) of the Act, to recommend measures concerning a non-Federal undertaking that will adversely affect a property included in or eligible for inclusion in the National Register: (1) Upon request from the President of the United States, the President of the U.S. Senate, or the Speaker of the House of Representatives, or (2) when agreed upon by a majority vote of the members of the Council.

(b) *Comment or report upon Federal undertaking in special circumstances.* The Council will exercise its authority to comment to Federal agencies in certain special situations even written notice that an undertaking will have an effect has not been received. For example, the Council may choose to comment in situations where an objection is made to a Federal agency finding of "no effect."

800.8 *Criteria of effect.* A Federal, federally assisted, or federally licensed undertaking shall be considered to have an effect on a National Register property or property eligible for inclusion in the National Register (districts, sites, buildings, structures, and objects, including their settings) when any condition of the undertaking causes or may cause any change, beneficial or adverse, in the quality of the historical, architectural, archeological, or cultural character that qualifies the property under the National Register Criteria.

800.9 *Criteria of adverse effect.* Generally, adverse effects occur under conditions which include but are not limited to:

(a) Destruction or alteration of all or part of a property;

(b) Isolation from or alteration of its surrounding environment;

(c) Introduction of visual, audible, or atmospheric elements that are out of character with the property or alter its setting;

(d) Transfer or sale of a federally owned property without adequate conditions or restrictions regarding preservation, maintenance, or use; and

(e) Neglect of a property resulting in its deterioration or destruction.

800.10 *National Register Criteria.* (a) "National Register Criteria" means the following criteria established by the Secretary of the Interior for use in evaluating and determining the eligibility of properties for listing in the National Register:

The quality of significance in American history, architecture, archeology, and culture is present in districts, sites, buildings, structures, and objects of State and local importance that possess integrity of location, design, setting, materials, workmanship, feeling and association and:

(1) That are associated with events that have made a significant contribution to the broad patterns of our history; or

(2) That are associated with the lives of persons significant in our past; or

(3) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

(4) That have yielded, or may be likely to yield, information important in prehistory or history.

(b) *Criteria considerations.* Ordinarily cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

(1) A religious property deriving primary significance from architectural or artistic distinction or historical importance;

(2) A building or structure removed from its original location but which is the surviving structure most importantly associated with a historic person or event;

(3) A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building directly associated with his productive life;

(4) A cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events;

(5) A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived;

(6) A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own historical significance; or

(7) A property achieving significance within the past 50 years if it is of exceptional importance.

The following properties were listed on the National Register as of December 31, 1974. Those which are marked by an asterisk have been designated National Historic Landmarks by the Secretary of the Interior.

NATIONAL REGISTER ENTRIES

ALABAMA

Autauga County

Prattville vicinity, *Whittaker, Jack, House,* S of Prattville off AL 14 (10-25-74).

Baldwin County

Bridgehead vicinity, *Blakeley,* north of Bridgehead (6-25-74).

Gasque vicinity, **Fort Morgan,* western terminus of Alabama 180.

Stockton vicinity, *Bottle Creek Indian Mounds,* approximately 7 miles west of Stockton (12-3-74).

Tensaw vicinity, *Fort Mims Site,* sec. 46 R. 2 E., T. 3 N.

Barbour County

Clayton, *Miller-Martin Town House,* Louisville Avenue (12-16-74).

Clayton, *Petty-Roberts-Beatty House,* (Octagon House), 103 North Midway (1-21-74).

Eufaula, *Bray-Barron Home,* North Eufaula Avenue.

Eufaula, *Cato House,* 823 West Barbour Street.

Eufaula, *Drewry-Mitchell-Moorer House,* 640 North Eufaula Avenue.

Eufaula, *Fendall Hall,* Barbour Street.

Eufaula, *Kendall Manor,* 534 West Broad Street.

Eufaula, *Kiels-McNab-Houghtie House,* Barbour Street.

Eufaula, *Lore Historic District,* bounded by Barbour Street on the south, Eufaula Avenue on the west, Browder Street on the north and Livingston Street on the east (12-12-73).

Eufaula, *McNab Bank Building,* Broad Street.

Eufaula, *Sheppard Cottage,* East Barbour Street.

Eufaula, *Shorter Mansion,* 340 North Eufaula Avenue.

Eufaula, *Sparks, Governor, House* (*H. C. Hart House*), 257 Broad Street.

Eufaula, *The Tavern* (*River Tavern*), 105 Riverside Drive.

Eufaula, *Wellborn* (*Welborn*) *House,* Livingston Avenue.

Bibb County

Brierfield, *Montebrier.*

Brierfield vicinity, *Brierfield Furnace,* west of Brierfield (11-20-74).

Blount County

Oneonta vicinity, *Horton Mill Covered Bridge,* 5 miles north of Oneonta on Route 3.

Calhoun County

Anniston, *Anniston Inn Kitchen,* 130 west 15th Street.

Coldwater, *Coldwater Creek Covered Bridge,* spans Coldwater Creek 0.5 mile from I-20 (also in Talladega County).

Jacksonville, *Francis, Dr. J. C., Office,* 100 Gayle Street.

Chambers County

LaFayette, *Oliver, Ernest McCarty, House,* North LaFayette Street (U.S. 431) (1-31-74).

Cherokee County

Cedar Bluff vicinity, *Cornwall Furnace,* 2 miles north of Cedar Bluff.

Clay County

Ashland, *Black, Hugo, House,* South Second Street East (Ala. 77) (10-8-73).

Cleburne County

Edwardsville vicinity, *Shoal Creek Church,* 4 mile northwest of Edwardsville on Forest Service Road 386 in Talladega National Forest (12-4-74).

Coffee County

Elba, *Coffee County Courthouse,* Courthouse Square.

Enterprise, *Boll Weevil Monument,* intersection of Main and College Streets.

Enterprise, *Seaboard Coastline Depot,* Railroad and West College (5-7-74).

Colbert County

**Barton Hall.*

Florence vicinity, **Wilson Dam,* Tennessee River, on Alabama 133 (also in Lauderdale County).

Leighton vicinity, *La Grange Rock Shelter,* southwest of Leighton (6-18-74).

Tuscumbia, *Colbert County Courthouse Square Historic District.*

Tuscumbia, *Ivy Green* (*Helen Keller Birthplace*), 300 West North Common.

Coosa County

Rockford, *Coosa County Jail,* off Alabama 22 (6-20-74).

Covington County

Opp, *Shepard, William T., House,* Poley Road (6-14-73).

Cullman County

Cullman vicinity, *Clarkson Bridge,* west of Cullman off County Road 11 (6-25-74).

Dale County

Newton, *Oates-Reynolds Memorial Building,* Oates Street (6-18-74).

Dallas County

Selma, *Morgan, John Tyler, House,* 719 Tremont.

Selman, *Sturdivant Hall* (*Watts-Parkman-Gillman House*), 713 Mabry Street.

Selma, *Water Avenue Historic District,* Water Avenue.

Selma* vicinity, *Cahaba,* 11 miles southwest of Selma, at junction of Cahaba and Alabama Rivers.

De Kalb County

Fort Payne, *Fort Payne Opera House,* 510 road *Passenger Depot,* Northeast Fifth Street.

Fort Payne, *Forte Payne Opera House,* 510 Gault Avenue North.

Independence County

Batesville, *Garrott House* (*Case-Maxfield House*), 561 East Main Street.

Batesville, *Morrow Hall*, Seventh and Boswell Streets.

Batesville vicinity, *Spring Mill*, northwest of Batesville on Arkansas 69 (3-1-74).

Jackson County

Jacksonport, *Jacksonport State Park*, located between Avenue Main, and Dillard Streets, and the White River.

Jefferson County

Pine Bluff, *Du Bocage*, 1115 West Fourth Street.

Pine Bluff, *Hudson-Grace-Borreson House*, 716 West Barraque.

Pine Bluff, *Trinity Episcopal Church*, Third and Oak Streets (7-30-74).

Redfield vicinity, *Dollarway Road*, south of Redfield off U.S. 65 (6-17-74).

Lawrence County

Powhatan, *Powhatan Courthouse*.

Lee County

Blackton vicinity, *Louisiana Purchase Survey Marker*, southeast of Blackton at the corner of the three counties (also in Monroe and Phillips Counties.)

Lonoke County

Scott vicinity, *Toltec Indian Mounds* (*Knapp Mounds*).

Mississippi County

Wilson, **Nodena Site*, south edge of Wilson.

Monroe County

Louisiana Purchase Survey Marker (see Lee County).

Nevada County

Prescott vicinity, *Prairie De Ann Battlefield*, northwest of Prescott bounded roughly by county line, U.S. 30 and line about 1 mile north of intersection with Arkansas 19 (3-22-76).

Newton County

Boxley vicinity, *Villines Mill* (*Whiteley Mill*), north of Boxley on Arkansas 43 (7-31-74).

Ouachita County

Camden, *Elliott-Meek House*, 761 Washington Street (3-1-74).

Camden, *Graham-Gaughan-Betts House*, 710 Washington Street (10-11-74).

Camden, *McCollum-Chidester House*, 926 Washington Street NW.

Camden, *Powell, Benjamin T., House*, 305 California Avenue (1-21-74).

Camden, *Smith, Rowland B., House*, 234 Agee Street (1-21-74).

Camden, *Tate's Barn*, 902 Tate Street.

Camden vicinity, *Bragg House*, west of Camden on Arkansas 4 (3-1-74).

Chidester vicinity, *Poison Spring State Park*.

Phillips County

Louisiana Purchase Survey Marker (see Lee County).

Helena, *Allin House*, 515 Columbia Street.

Helena, *Almer Store*, 824 Columbia Street (10-16-74).

Helena, *Battery D*, Military Road (9-17-74).

Helena, *Estevan Hall*, 653 S. Biscoe Street (10-22-74).

Helena, *Moore-Horner House*, 323 Beech Street.

Helena, *Pillow, Jerome Bonaparte, House* (*Pillow-Thompson House*), 718 Perry Street.

Helena, *Short-Biscoe House*, 629 Biscoe Street (10-29-74).

Helena, *Tappan, Major James Alexander, House*, 727 Columbia Street (9-9-74).

Helena, *Tappan, James C., House*, 717 Poplar Street.

Pike County

Murfreesboro vicinity, *Crater of Diamonds State Park*, south of Murfreesboro on the Little Missouri River.

Pope County

Pottsville, *Potts' Inn*, Main and Center Streets.

Pulaski County

Little Rock, *Arkansas State Capitol*, Fifth and Woodlane Streets (6-28-74).

Little Rock, *Capital Hotel*, 117 West Markham (7-30-74).

Little Rock, *Fowler, Absalom, House*, 502 East Seventh Street.

Little Rock, *Hanger, Frederick, House*, 1010 Scott Street (3-15-74)

Little Rock, *Hornibrook House*, 2120 South Louisiana (7-30-74).

Little Rock, *The Little Rock*, on the south bank of the Arkansas River at the foot of Rock Street.

Little Rock, *Mount Holly Cemetery*, 12th Street and Broadway.

Little Rock, *Old Post Office Building and Customhouse*, Second and Spring Streets.

Little Rock, *Old Statehouse*, 300 West Markham Street.

Little Rock, *Pike-Fletcher-Terry House*, 411 East Seventh Street.

Little Rock, *The Tavern, Arkansas Territorial Restoration*, 214 East Third Street.

Little Rock, *Trapnall Hall*, 423 East Capitol Avenue.

Little Rock, *U.S. Arsenal Building*, MacArthur Park, Ninth and Commerce Streets.

Little Rock, *Villa Marre* (*Angelo Marre House*), 1321 Scott Street.

Mabelvale vicinity, *Ten Mile House* (*Stagecoach House*), north of Mabelvale on Arkansas 5.

North Little Rock, *Fort Logan H. Roots Military Post*, Scenic Hill Drive (9-4-74).

Randolph County

Black Rock vicinity, *Old Davidsonville State Historic Monument*, north-northeast of Black Rock on Black River (1-18-74).

Pocahontas, *Old Randolph County Courthouse*, Broadway and Vance.

Sebastian County

Fort Smith, *Bonneville House*, 318 North Seventh Street.

Fort Smith, *Clayton, W. H. H., Home*, 514 North Sixth Street.

Fort Smith, *Commercial Hotel*, 123 North First Street.

Fort Smith, *Fort Smith's Belle Grove Historic District* (7-16-73).

Fort Smith, *Fort Smith National Historic Site*.

Fort Smith, *Joseph Knoble's Brewery*, North Third and E Streets.

Fort Smith, *Sparks, James, House*, 201 North 14th Street.

Union County

El Dorado, *Garrett House*, 310 Peach Street (11-21-74).

El Dorado, *Rainey, Matthew, House*, 510 North Jackson Street (11-6-74).

Washington County

Fayetteville, *Gregg House*, 339 N. Gregg Street (9-17-74).

Fayetteville, *Headquarters House* (*Tebbetts House*), 118 East Dickson Street.

Fayetteville, *Old Main, University of Arkansas*, Arkansas Avenue.

Fayetteville, *Old Post Office*, City Square (6-27-74).

Fayetteville, *Ridge House, The*, 230 West Center Street.

Fayetteville, *Stone House*, 207 Center Street.

Fayetteville, *Washington County Courthouse*, College Avenue and East Center Street.

Prairie Grove, *Prairie Grove Battlefield Park*, within a triangle formed by North Road on the northwest and U.S. 62 on the south.

Prairie Grove vicinity, *Latta-Bell House*, north of Prairie Grove (11-6-74).

Searcy, *Black, Benjamin Clayton, House*, 300 East Race Street (11-20-74).

California

Alameda County

Berkeley, **Room 307 Gilman Hall, University of California*, University of California campus.

Berkeley, *St. John's Presbyterian Church*, 2640 College Avenue (5-7-74).

Berkeley, *Senior Hall*, University of California, Berkeley campus (11-5-74).

Fremont, *California Nursery Co. Guest House* (*Jose de Jesus Vallejo Adobe*), California Nursery Co., Niles Boulevard at Nursery Avenue.

Fremont (Mission San José District), *Mission San José*, Mission Boulevard at Washington Boulevard.

Hayward, *Meek Mansion and Carriage House*, 240 Hampton Road.

Oakland, *The Abbey* (*Joaquin Miller House*), Joaquin Miller Road and Sanborn Drive.

Oakland, *Cohen, Alfred H., House*, 1440 29th Avenue.

Oakland, *Dunsmuir House*, Peralta Oaks Court.

Oakland, **Lake Merritt Wild Duck Refuge*, Lakeside Park, Grand Avenue.

Oakland, *Mills Hall*, Mills College campus.

Oakland, *Old Oakland Public Museum* (*Cameron-Stanford House*), 1426 Lakeside Drive.

Oakland, *Paramount Theatre*, 2025 Broadway (6-14-73).

Amador County

Jackson, *Amador County Hospital Building*, 810 Court Street.

Volcano vicinity, *Indian Grinding Rock* (*Chaw'se*).

Butte County

Chico, *Bidwell Mansion*, Sowilleno Avenue.

Paradise vicinity, *Centerville Schoolhouse*, 2 miles northwest of Paradise on Humbug Road.

Chico vicinity, *Mud Creek Canyon*, north of Chico (6-14-73).

Chico vicinity, *Patrick Rancheria*.

Chico vicinity, *Patrick, William G., Home*, 3 miles southeast of Chico off U.S. 99 E.

Calaveras County

Angels Camp, *Angels Hotel*, Main Street at Birds Way.

Douglas Flat, *Douglas Flat School*, on California 4.

Murphys, *Murphys Grammar School*, Jones Street.

Murphys, *Murphys Hotel* (*Mitchler Hotel*), Main and Algiers Streets.

San Andreas, *Calaveras County Courthouse*, Main Street.

San Andreas, *Thorn House*, 87 East St. Charles Street.

Colusa County

Grimes vicinity, *Nowi Rancheria*.

Contra Costa County

Byron vicinity, *Marsh, John, Home*, Marsh Creek Road, approximately 6 miles west of Byron.

Danville vicinity, **O'Neill, Eugene, House* (*Tao House*), 1.5 miles west of Danville.

Martinez, *John Muir National Historic Site*, 4440 Alhambra Avenue.

Orinda, *Moraga Adobe*, 24 Adobe Lane.

Pinole, *Fernandez, Bernardo, House*, 100 Tennent Avenue.

Richmond vicinity, _East Brother Island Light Station_, on the East Brother Island west of Point San Pablo.

Del Norte County

Fort Dick vicinity, _Yontocket Historical District_, northwest of Fort Dick off U.S. 101 (12-18-73).
Klamath vicinity, _Old Requa_, northwest of Klamath off U.S. 101 (12-16-74).

El Dorado County

Homewood vicinity, _Sugar Pine Point State Park (Phipps-Hellman-Ehrman Estate)_, 3 miles south of Homewood on California 89.
Placerville vicinity, *_Coloma_, 7 miles northwest of Placerville on California 49.

Fresno County

Fresno, _Old Administration Building, Fresno City College_, 1101 University Avenue (5-1-74).
Fresno, _Old Fresno Water Tower_, 2444 Fresno Street.

Humboldt County

Eureka, _First and F Street Building_, 112 F Street (7-12-74).
Eureka, _Janssen, E., Building_, 422 First Street (7-16-73).
Eureka, _Tsahpek_, 3481 Fort Avenue.
Eureka vicinity, *_Gunther Island Site 67 (Tolowot)_.

Imperial County

Anza-Borrego Desert State Park _Fages-De Anza Trail—Southern Emigrant Route_ (also in San Diego County).
Winterhaven, *_Yuma Crossing and Associated Sites_ (see Yuma County, Ariz.).

Inyo County

China Lake vicinity, *_Big and Little Petroglyph Canyons_.
Death Valley, _Skidoo_, Death Valley National Monument (4-18-74).

Kern County

Bakersfield, *_Walker Pass_.
Johannesburg vicinity, _Last Chance Canyon_.
Lebec vicinity, _Fort Tejon_, 3 miles northwest of Lebec on U.S. 99.

Kings County

Hanford, _Taoist Temple_, No. 12 China Alley.
Kettleman City vicinity, _Witt Site_.

Lake County

Clearlake Oaks vicinity, _Patwin Indian Site_.
Lakeport, _Lake County Courthouse_, 255 North Main Street.

Lassen County

Susanville, _Roop's Fort (Roop's Trading Post)_, North Weatherlow Street (5-8-74).

Los Angeles County

Aqua Dulce, _Vasquez Rocks_.
Chatsworth vicinity, _Santa Susana Stage Road_, west-northwest of Chatsworth off California 18 (1-10-74).
Encino, _Rancho El Encino (Los Encinos State Historic Park)_, 16756 Moorpark Street.
Industry, _Rowland, John A., House_, 16021 East Gale Avenue (7-16-73).
Industry, _Temple Mansion_, 15415 East Don Julian Road (12-8-74).
Industry, _Workman Adobe_, 15415 East Don Julian Road (11-20-74).
Industry, _Workman Family Cemetery_, 15415 East Don Julian Road (11-20-74).
Long Beach, *_Los Cerritos Ranch House_, 4600 Virginia Road.
Long Beach, _Puvunga Indian Village Sites_, East Bixby Hill Road and East Seventh Street (1-31-74).
Los Angeles, _Barnsdall Park_, 4800 Hollywood Boulevard.
Los Angeles, _Bradbury Building_, 304 South Broadway.
Los Angeles, _Catholic-Protestant Chapels_, Eisenhower Avenue near Bonsall Avenue.
Los Angeles, _Centinela Adobe_, 7634 Midfield Avenue (5-8-74).
Los Angeles, _Ennis House_, 2607 Glendower Avenue.
Los Angeles, _Freeman, Samuel, House_, 1962 Glencoe Way.
Los Angeles, _Hale House_, 3800 North Homer Street.
Los Angeles, _Los Angeles Central Library_, 630 West Fifth Street.
Los Angeles, _Los Angeles Plaza Historic District_, generally bounded by Spring Street, Macy Street, Alameda Street, and Arcadia Street.
Los Angeles, _Lovell House_, 4616 Dundee Drive.
Los Angeles, _Lummis Home_, 200 E Avenue 43.
Los Angeles, _Schindler House_, 835 North Kings Road.
Los Angeles, _Sowden, John, House_, 5121 Franklin Avenue.
Los Angeles, _Storer House_, 8161 Hollywood Boulevard.
Los Angeles, _Streetcar Depot (Building No. 66)_, Pershing and Dewey Avenues.
Los Angeles, _Watts Station_, 1686 East 103d Street (2-15-74).
Los Angeles, _Will Rogers State Historic Park (Will Rogers House)_, 14253 Sunset Boulevard.
Lynwood, _Lynwood Pacific Electric Railway Depot_, 11453 Long Beach Boulevard (9-26-74).
Mission Hills, _Pico-Romulo Adobe_, 10940 Sepulveda Boulevard.
Monrovia, *_Sinclair, Upton, House_, 464 North Myrtle Avenue.
Pasadena, _Gamble House (Greene and Greene Library)_, 4 Westmoreland Place.
Pasadena, _Neighborhood Church_, northwest corner Pasadena Avenue and California Boulevard (4-8-74).
Pasadena (San Marino), _Old Mill (El Molino Viejo)_, 1120 Old Mill Road.
Pomona, _Palomares Adobe_, corner of Arrow Highway and Orange Grove Avenue.
Pomona, _Phillips Mansion_, 2640 West Pomona Boulevard (11-6-74).
San Dimas, _San Dimas Hotel_, 121 North San Dimas Avenue.
San Fernando, _Lopez Adobe_, 1100 Pico Street.
San Fernando vicinity, *_Well No. 4, Pico Canyon Oil Field_, 9.8 miles north of San Fernando and west of U.S. 99.
San Gabriel, _San Gabriel Mission_, Junipero Street and West Mission Drive.
San Pedro, _Battery Osgood-Farley_, Fort MacArthur Upper Reservation (10-18-74).
San Pedro, _Point Fermin Lighthouse_, 805 Paseo Del Mar.
South Pasadena, _Adobe Flores_, 1804 Foothill Street.
South Pasadena, _Garfield House_, 10001 Buena Vista Street.
South Pasadena, _Longley, Howard, House_, 1005 Buena Vista Street (4-16-74).
South Pasadena, _Miltimore House_, 1301 South Chelten Way.
South Pasadena, _Oaklawn Bridge and Waiting Station_, between Oaklawn and Fair Oaks Avenues (7-16-73).
South Pasadena, _Wynyate_, 851 Lyndon Street.
Tujunga, _Bolton Hall (Tujunga City Hall)_, 10116 Commerce Avenue.
Whittier, _Pio Pico Casa_, 6003 Pioneer Boulevard.
Wilmington, _Banning Home_, 401 East M Street.
Wilmington, _Drum Barracks_, 1052 Carey Street.

Madera County

Madera, _Madera County Courthouse_, 210 West Yosemite Avenue.

Marin County

Novato vicinity, _Rancho Olompali (Coast Miwok Indian Village)_, 8901 Redwood Highway (U.S. 101), 2.5 miles north of Novato.
San Rafael, _Boyd House_, 1125 B Street (12-17-74).
San Rafael, _Dixie Schoolhouse_, 2255 Las Gallinas Avenue.
San Rafael, _Dollar, Robert, Estate_, 1408 Mission Avenue.
San Rafael, _Miller Creek School Indian Mound_.
Sausalito vicinity, _Forts Baker, Barry and Cronkhite_, south of Sausalito off U.S. 101 (12-1-2-73).
Tiburon vicinity, _Angel Island_, southeast of Tiburon in San Francisco Bay.

Mariposa County

Yosemite National Park, _Yosemite Valley Chapel_, off California 140 (12-12-73).

Mendocino County

Mendocino, _Mendocino and Headlands Historic District_, bounded approximately by the Pacific Ocean on the west and south, Little Lake Street on the north, and U.S. 1 on the east.
Pine Grove vicinity, _Point Cabrillo Site_.

Merced County

Los Banos vicinity, _San Luis Gonzaga Archeological District_.

Modoc County

Alturas, _Nevada-California-Oregon Railway Company General Office Building_, 619 N. Main Street (9-6-74).
Canby vicinity, _Black Cow Spring_, west of Canby in Modoc National Forest (7-8-74).
Canby vicinity, _Core Site_, about 5 miles southeast of Canby in the Modoc National Forest (4-8-74).
Canby vicinity, _Guppy Cave_, southwest of Canby in the Modoc National Forest (7-12-74).
Canby vicinity, _Sevenmile Flat Site_, about 8 miles northwest of Canby in Modoc National Forest (12-24-74).
Canby vicinity, _Skull Ridge_, northwest of Canby in Modoc National Forest (7-8-74).
Canby vicinity, _Skull Spring_, northwest of Canby in Modoc National Forest (7-8-74).

Mono County

Bridgeport, _Mono County Courthouse_, Main Street (3-1-74).
Bridgeport vicinity, *_Bodie Historic District_, 7 miles south of Bridgeport on U.S. 395, then 13 miles east on secondary road.

Monterey County

Carmel, *_Carmel Mission_, Rio Road.
Jolon, _Gil, Jose Maria, Adobe_, Hunter Liggett Military Reservation (6-7-74).
Jolon vicinity, _Dutton Hotel, Stagecoach Station_, King City-Jolon Road.
Monterey, _El Castillo_, on Presidio Headlands facing Lighthouse Avenue.
Monterey, *_Larkin House_, 464 Calle Principal.
Monterey, *_Monterey Old Town Historic District_. Two districts. The southern one bounded by Dutra Street on the west, Madison Street on the east, Polk Street on the south, and Jefferson Street on the north; northern district bounded by Pacific Street on the west, Scott Street on the south, by Alvarado Street on the east, and Decatur Street on the north.
Monterey, *_Royal Presidio Chapel_, 550 Church Street.
Monterey, _Stevenson House (Monterey State Historic Park)_, Houston Street between Pearl and Webster.
Monterey, *_U.S. Customhouse (Old Customhouse)_, Calle Principal at Decatur Street.

Salinas vicinity, *Boronda, José Eusebio, Adobe*, west of Salinas on Boronda Road at West Laurel Drive.

Napa County

Napa, *Behlow Building*, Second and Brown Streets (10-25-73).

Napa, *Goodman Library*, 1219 First Street (1-21-74).

Napa, *Kee, Sam, Laundry Building*, 1245 Main Street (10-1-74).

Napa, *Napa Opera House*, 1018-1030 Main Street (10-25-73).

Napa, *Semorile Building*, 975 First Street (11-21-74).

St. Helena, *Krug, Charles, Winery*, St. Helena Highway (11-8-74).

St. Helena, *Pope Street Bridge*, Pope Street, over the Napa River.

St. Helena, *Rhine House*, 2000 Main Street.

St. Helena vicinity, *Bale Mill*, 3 miles northwest of Saint Helena off California 128.

Nevada County

French Corral vicinity, *Bridgeport Covered Bridge*, across the South Fork of the Yuba River on the road between French Corral and Smartville.

French Lake vicinity, *Meadow Lake Petroglyphs*, east of French Lake.

Grass Valley, *Mount St. Mary's Academy and Convent*, Church and Chapel Streets (5-3-74).

Nevada City, *Marsh, Martin Luther, House*, 254 Boulder Street.

Nevada City, *National Exchange Hotel (Bicknell's Block)*, 211 Broad Street (10-25-73).

Nevada City, *Nevada City Firehouse #2*, 420 Broad Street (5-3-74).

Nevada City, *Nevada Theatre (Cedar Theatre)*, Broad and Bridge Streets.

North Bloomfield, *Malakoff Diggins-North Bloomfield Historic District*, Graniteville Star Route.

Truckee vicinity, **Donner Camp*, 2.6 miles west of Truckee on U.S. 40.

Orange County

Costa Mesa, *Fairview Indian Site*.

Modjeska, *Modjeska House*, Modjeska Canyon Road.

Newport Beach, *Lovell Beach House*, 1242 West Ocean Front (2-5-74).

San Juan Capistrano, *Mission San Juan Capistrano*, Camino Capistrano and Ortega Highway.

Yorba Linda, *Nixon, Richard, Birthplace*, 18061 Yorba Linda Boulevard.

Placer County

Auburn, *Old Auburn Historic District*, bounded approximately by Interstate 80, Maple Street, and Hamilton Lane on the north, High Street on the south, and including the westerly frontage on Spring Street, the easterly frontage on Lincoln Way and Sacramento Street, and the Traveler's Rest and Winery property at the southeast of the historic district.

Dutch Flat, *Dutch Flat Historic District*, Main and Stockton Streets.

Roseville vicinity, *Strap Ravine Nisenan Maidu Indian Site*.

Tahoe City, *Outlet Gates and Gatekeeper's Cabin*, at California 89 and Truckee River.

Plumas County

Blairsden vicinity, *Plumas-Eureka Mills Jamison Mines District*, west of Blairsden off alternate U.S. 40 in Plumas-Eureka State Park (7-16-73).

Gold Lake vicinity, *Lakes Basin Petroglyphs*.

Riverside County

Palm Springs vicinity, *Andreas Canyon (Rincon Village)*, S. Palm Canyon Drive (1-8-73).

Palm Springs vicinity, *Tahquitz Canyon*.

Riverside, *Heritage House*, 8193 Magnolia Avenue.

Riverside, *Mission Inn*, 3649 Seventh Street.

Temecula vicinity, *Murrieta Creek Archeological Area*.

Torres-Martinez Indian Reservation, *Martinez Historical District*, 1 miles southeast of Highway 86.

Valerie vicinity, *Coachella Valley Fish Traps*.

Sacramento County

Folsom, *Folsom Powerhouse*, off Folsom Boulevard in Folsom Lake State Recreation Area (10-2-73).

Locke, *Locke Historic District*, bounded on the west by the Sacramento River, on the north of Locke Road, on the east by Alley Street, and on the south by Levee Street.

Locke vicinity, *Delta Meadows Site*.

Sacramento, *California Governor's Mansion*, southwest corner of 16th and H Streets.

Sacramento, *California State Capitol*, between 10th and 16th Streets and L and N Streets.

Sacramento, *Crocker, E. B., Art Gallery*, 216 O Street.

Sacramento, *Joe Mound*.

Sacramento, **Old Sacramento Historic District*, junctions of U.S. 40, 50, 99, and California 16 and 24.

Sacramento, **Pony Express Terminal (B. F. Hastings Building)*, 1006 Second Street.

Sacramento, *Stanford-Lathrop Home*, 800 N Street.

Sacramento, **Sutter's Fort*, 2701 L Street.

Sacramento, *Woodlake Site*.

San Benito County

San Juan Bautista, **Anza House*, Third and Franklin Streets.

San Juan Bautista, **Castro, Jose, House*, south side of the Plaza.

San Juan Bautista, **San Juan Bautista Plaza Historic District*.

San Bernardino County

Cucamonga, *Rains, John, House*, 7869 Vineyard Avenue.

Needles vicinity, *Piute Pass Archeological District, northwest of Needles* (5-14-73).

Yermo vicinity, *Calico Mountains Archeological District*.

San Diego County

Fages-De Anza Trail—Southern Emigrant Route (see Imperial County).

Camp Joseph H. Pendleton, **Las Flores Adobe*, Stuart Mesa Road, about 7 miles north of its junction with Vandegrift Boulevard.

Camp Pendleton, *Santa Margarita Ranch House*, off Vandegrift Boulevard.

Coronado, *Hotel Del Coronado*, 1500 Orange Avenue.

La Jolla, *La Jolla Woman's Club*, 715 Silverado Street (11-5-74).

National City, *Brick Row*, A Avenue between 9th and 10th Streets (7-16-73).

National City, *St. Matthew's Episcopal Church*, 521 East Eighth Street (10-25-73).

Oceanside vicinity, **San Luis Rey Mission Church*, 4 miles east of Oceanside on California 76.

Pine Valley vicinity, *Bear Valley Archaeological Site*, South of Pine Valley (7-30-74).

San Diego, *California Quadrangle (Panama-California International Exposition)*, Balboa Park (5-17-74).

San Diego, *Davis, William Heath, House*, 227 11th Street (2-15-74).

San Diego, **Estudillo House*, 4000 Mason Street.

San Diego, *Ford Building*, Balboa Park, Palisades Area.

San Diego, *Initial Point of Boundary between U.S. and Mexico*, S of Imperial Beach off Monument Road (9-6-74).

San Diego, *Klauber, Melville, House*, 3060 6th Avenue (11-19-74).

San Diego, *Marston, George W., House*, 3525 7th Avenue (12-16-74).

San Diego, **Old Mission Dam*, north side of Mission Street-Gorge Road.

San Diego, *Old Point Loma Lighthouse*, Cabrillo National Monument (8-27-74).

San Diego, *Old Town San Diego Historic District*, approximately from the easterly line of Wallace and Washington Streets to the westerly line of Twiggs Street, and from the northerly line of Congress Street to the southerly line of Juan Street.

San Diego, **San Diego Presidio*, Presidio Park.

San Diego, *Santa Fe Depot (Union Station)*, 1050 Kettner.

San Diego, **Star of India*, San Diego Embarcadero.

San Diego, *Villa Montezuma (Jesse Shepard House)*, 1925 K Street.

San Diego vicinity, *Cabrillo National Monument*, 10 miles from San Diego off U.S. 101, near the southern tip of Point Loma.

San Diego vicinity, **San Diego Mission Church*, 5 miles east of Old Town San Diego on Friars Road.

Spring Valley, **Bancroft, Hubert H., Ranch House*, Bancroft Drive off California 94.

Vista vicinity, **Guajome Ranch House*, 2.5 miles northeast of Vista.

Warner Springs vicinity, **Oak Grove Butterfield Stage Station*, 12 miles northwest of Warner Springs on California 79.

Warner Springs vicinity, **Warner's Ranch*, 4 miles south of Warner Springs on secondary road.

San Francisco County

San Francisco, **C. A. Thayer*, San Francisco Maritime State Historic Park.

San Francisco, *Eureka (ferryboat)*, 2905 Hyde Street in San Francisco Maritime State Historic Park.

San Francisco, *Feusier Octagon House*, 1067 Green Street.

San Francisco, **Flood, James C., Mansion*, California and Mason Streets.

San Francisco, *Fort Mason Historic District*, northeast corner of Fort Mason, north and east of Franklin Street and McArthur Avenue.

San Francisco, *Fort Point National Historic Site*, northern tip of San Francisco Peninsula on U.S. 101 and Interstate 480.

San Francisco, *Golden Gate Park Conservatory*, Mount Lick, north of John F. Kennedy Drive, at the east end of Golden Gate Park.

San Francisco, *Haas-Lilienthal House*, 2007 Franklin Street.

San Francisco, *Hallidie Building*, 130 Sutter Street.

San Francisco, *House at 216-20 Elm Street*.

San Francisco, *House at 736-38 Franklin Street*.

San Francisco, *House at 848 Octavia Street*.

San Francisco, *House at 1624 Post Street*.

San Francisco, *House at 1356-62 Scott Street*.

San Francisco, *House at 743 Turk Street*.

San Francisco, *House at 751 Turk Street*.

San Francisco, *House at 770 Turk Street*.

San Francisco, *House at 773 Turk Street*.

San Francisco, *Jackson Square Historic District*, bounded roughly by Sansome Street on the east; Washington Street on the south; Columbus Avenue and Kearny Street on the west; and an irregular line midway between Pacific Avenue and Broadway on the north.

San Francisco, *Jessie Street Substation C*, 222-226 Jessie Street (9-6-74).

San Francisco, *McElroy Octagon House*, 2645 Gough Street.

San Francisco, *Mission Dolores*, 320 Dolores Street.

San Francisco, **Old United States Mint*, Fifth and Mission Streets.

San Francisco, *Phelps, Abner, House*, 329 Divisadero Street.

San Francisco, *The Presidio*, northern tip of San Francisco peninsula on U.S. 101 and I 480.

San Francisco, **San Francisco Cable Cars*.

San Francisco, *U.S. Post Office and Courthouse*, northeast corner of Seventh and Mission Streets.

San Francisco, *Wapama* (schooner), 2905 Hyde Street in San Francisco Maritime State Historic Park.

San Joaquin County

Lockeford, *Locke Home and Barn*, 19960 West Elliott Road.

Stockton, *Old Weber School*, 55 West Flora Street (7-16-73).

San Luis Obispo County

Nipomo, *Dana Adobe*, southern end of Oak Glen Avenue.

San Miguel, *Caledonia Adobe*, 0.5 mile south of 10th Street.

San Miguel, *Mission San Miguel*, U.S. 101.

San Simeon vicinity, *Hearst San Simeon State Historical Monument*, about 5 miles northeast of San Simeon.

San Mateo County

Belmont, **Ralston, William C., Home*, college of Notre Dame campus.

Half Moon Bay vicinity, *Johnston, James, House*, Higgins-Purisima Road.

Menlo Park, *Menlo Park Railroad Station*, 1100 Merrill Street (10-1-74).

Portola Valley, *Casa de Tableta*, 3915 Alpine Road (6-14-73).

Portola Valley, *Portola Valley School*, 775 Portola Road (6-28-74).

Redwood City, *Lathrop House*, 627 Hamilton Street.

San Bruno vicinity, **San Francisco Bay Discovery Site*, 4 miles west of San Bruno via Skyline Drive and Sneath Lane.

Santa Barbara County

Lompoc vicinity, **La Purisima Mission*, 4 miles east of Lompoc.

Los Alamos vicinity, **Los Alamos Ranch House*, 3 miles west of Los Alamos on old U.S. 101.

Santa Barbara, **Gonzales, Rafael, House (Vhay House)*, 835 Laguna Street.

Santa Barbara, **Santa Barbara Mission*, 2201 Laguna Street.

Santa Barbara, *Santa Barbara Presidio*, bounded roughly by Carrillo, Garden, De la Guerra, and Anacapa Streets (11-26-73).

Santa Barbara vicinity, *Painted Cave*.

Santa Clara County

Alviso, *Alviso, Port of, Historic District*, bounded roughly by an arm of Alviso Slough on the north, the Alviso Slough and the Guadalupe River on the West, Moffat Street on the south, and Gold Street on the east (10-9-73).

Cupertino, *Le Petit Trianon*, De Anza College campus.

Gilroy Hot Springs vicinity, *Coyote Creek Archeological District*.

Gilroy vicinity, **Norris, Frank, Cabin*, 10 miles west of Gilroy via California 152 and secondary roads.

Los Gatos, *McCullagh-Jones House*, 1600 Overlook Road (10-29-74).

Morgan Hill vicinity, *Poverty Flat Site*.

Palo Alto, *Downing, T. B., House*, 706 Cowper Street (10-30-73).

Palo Alto, *Squire John Adams House*, 900 University Avenue.

San Jose, *Civic Art Gallery (Old Post Office)*, 110 Market Street.

San Jose, *Peralta, Luis Maria, Adobe*, 184 West St. John Street (10-15-73).

San Jose, *Winchester House*, 525 South Winchester Blvd. (8-7-74).

San Jose vicinity, **New Almaden*, 14 miles south of San Jose on County Route G8.

Santa Cruz County

Capitola, *Hihn Building (Superintendent's Office)*, 201 Monterey Avenue.

Felton, *Felton Covered Bridge*, Covered Bridge Road.

Santa Cruz, *Octagon Building*, corner of Front and Cooper Streets.

Shasta County

Cottonwood, *Cottonwood Historic District* (7-16-73).

Cottonwood vicinity, *Reading Adobe Site*, Adobe Lane, 5 miles east of the center of Cottonwood.

French Gulch, *French Gulch Historic District*.

Millville vicinity, *Cow Creek Petroglyphs*.

Millville vicinity, *Dersch-Taylor Petroglyphs*, southeast of Millville.

Redding vicinity, *Benton Tract Site*.

Redding vicinity, *Olsen Petroglyphs*.

Shasta, *Shasta State Historic Park*, U.S. 299.

Whiskeytown, *Tower House District*, Whiskeytown National Recreation Area.

Sierra County

Gold Lake vicinity, *Hawley Lake Petroglyphs*.

Loyalton vicinity, *Kyburz Flat Site*.

Truckee vicinity, *Sardine Valley Archeological District*.

Verdi vicinity, *Stampede Site*.

Siskiyou ~~*Sierra*~~ *County*

Dorris vicinity, **Lower Klamath National Wildlife Refuge*, Lower Klamath Lake, east of Dorris (also in Klamath County, Oreg.).

Tulelake vicinity, *Captain Jack's Stronghold*, south of Tulelake in Lava Beds National Monument (9-20-73).

Tulelake vicinity, *Hospital Rock*, south of Tulelake in Lava Beds National Monument (10-2-73).

Yreka, *West Miner Street—Third Street Historic District*, 102-402 West Miner Street; 122-419 Third Street.

Solano County

Benicia, *Benicia Capitol-Courthouse*, First and G Streets.

Benicia, *Old Masonic Hall*, 106 West J Street.

Collinsville vicinity, *Hastings Adobe*, 0.3 mile north of Collinsville on County Route 65, then east 1.25 miles on County Route 493.

Vacaville vicinity, *Pena Adobe*, 2 miles southwest of Vacaville on Interstate 80.

Vallejo, *Vallejo Old City Historic District*, bounded by Sonoma Boulevard and Monterey, Carolina, and York Streets.

Sonoma County

Bodega vicinity, *Bodega Bay* (12-18-73).

Bodega Bay vicinity, *The Ranch Site*.

Fort Ross vicinity, **Fort Ross*, north of Fort Ross on California 1, Fort Ross State Historical Monument.

Fort Ross vicinity, **Fort Ross Commander's House*, north of Fort Ross on California 1, Fort Ross State Hisorical Monument.

Glen Ellen vicinity, **London, Jack, Ranch*, 0.4 mile west of Glen Ellen, Jack London Historical State Park.

Jenner vicinity, *Duncans Landing Site*.

Petaluma vicinity, **Petaluma Adobe*, 4 miles east of Petaluma on Casa Grande Road.

Santa Rosa, **Burbank, Luther, House and Garden*, 200 block Santa Rosa Avenue.

Santa Rosa, *McDonald Mansion*, 1015 McDonald Avenue (3-1-74).

Sonoma, **Sonoma*, center of Sonoma.

Sonoma, *Vallejo House*, corner of Spain and West Third Street.

Stewarts point vicinity, *Salt Point State Park Archaeological District*.

Stanislaus County

La Grange vicinity, *Gold Dredge*, off county road.

Trinity County

Weaverville, *Weaverville Historic District*, both sides of Main Street.

Tulare County

Allensworth, *Allensworth Historic District*.

Tuolumne County

Sonora vicinity, **Columbia Historic District*, 4 miles northwest of Sonora on California 49.

Ventura County

Oxnard, *Oxnard Public Library (Oxnard Chamber of Commerce—Art Club of Oxnard)*, 424 South C Street.

Ventura, *Ventura County Courthouse*, 501 Poli Street.

Yolo County

Broderick, **First Pacific Coast Salmon Cannery Site*, on the Sacramento River, opposite the foot of K Street.

Brooks vicinity, *Cañon School*, north of Brooks.

Rumsey, *Rumsey Town Hall*, California 16 at Manzanita Street.

Woodland, *Woodland, Hershey, Opera House*, 320 Second Street.

Woodland vicinity, *Nelson Ranch*, California 16C between Routes 113 and 102.

Colorado

Arapahoe County

Strasburg vicinity, *Comanche Crossing of the Kansas Pacific Railroad*, on the Union Pacific Railroad tracks east of the Strasburg depot.

Archuleta County

Antonito vicinity, *Cumbres and Toltec Scenic Railroad (Denver & Rio Grande Western Railroad)*, between Antonito and Chama, N. Mex. (also in Conejos County, Colo., and Rio Arriba County, N. Mex.).

Chimney Rock vicinity, *Chimney Rock Archeological Site*, San Juan National Forest, 2 miles east of the Piedra River and 1.5 miles north of Colorado 151.

Boulder County

Boulder, *Chautauqua Auditorium*, in Chautauqua Park (1-21-7[illegible]).

Lyons, *Lyons Railroad Depot*, 400 Block Broadway (12-2-7[illegible]).

Chaffee County

Poncha Springs vicinity, *Hutchinson Ranch*, 2 miles east of Poncha Springs.

Clear Creek County

Georgetown, *Alpine Hose Company No. 2*, 507 Fifth Street.

Georgetown, *Grace Episcopal Church*, Taos Street (between Fourth and Fifth Streets) (8-14-73).

Georgetown, *Hamill House*, Argentine Street and Third.

Georgetown, *Hotel de Paris*, Alpine Street.

Georgetown, *McClellan House*, 919 Taos Street.

Georgetown, *Toll House (Julius G. Pohle House)*, south side of town adjacent to Interstate 70 right-of-way.

Georgetown vicinity, *Ore Processing Mill and Dam*, approximately 1 mile southwest of Georgetown, adjacent to Interstate 70 and Clear Creek.

Georgetown-Silver Plume vicinity, **Georgetown-Silver Plume Historic District*.

Silver Plume, *Silver Plume Depot*, Interstate 70.

Silver Plume vicinity, *Lebanon and Everett Mine Tunnels*, northeast of Silver Plume, adjacent to Interstate 70 right-of-way.

Guernsey vicinity, **Oregon Trail Ruts*, south side of the North Platte River, 0.5 mile south of Guernsey.
Guernsey vicinity, *Register Cliff*.

Sheridan County

*Fort Phil Kearny and Associated Sites (see Johnson County).
Ranchester, *Connor Battlefield (Tongue River Battlefield)*, City Park on the Tongue River
Sheridan, **Sheridan Inn* Broadway and Fifth Street.
Sheridan, *Trail End*, 400 Clarendon Avenue.
Sheridan vicinity, *Big Goose Creek Buffalo Jump*, southwest of Sheridan (3-12-74).

Sublette County

Big Piney vicinity, *Wardell Buffalo Trap*, 6 miles east and 2 miles north of Big Piney.
Daniel vicinity, *Father De Smet's Prairie Mass Site*.
Daniel vicinity, **Upper Green River Rendezvous Site*, on Green River above and below Daniel.
Pinedale vicinity, *Fort Bonneville*.
Union Pass (see Fremont County).

Sweetwater County

Granger, *Granger Stage Station*.
Green River, **Expedition Island*.
Rock Springs vicinity, *Point of Rocks Stage Station*.

Teton County

Jackson vicinity, *Miller Cabin*, c. 3 miles east of Jackson's central square, along Main Street, follow northeast fork of road for 1 mile beyond city limits.
Moose, *Menor's Ferry*, on the Snake River.
Moose vicinity, *Cunningham Cabin*, northeast of Moose off U.S. 26-89-187 in Grand Teton National Park (10-3-73).
West Thumb vicinity, *Old Faithful Inn*, west of West Thumb at Old Faithful on Grand Loop Road (7-23-73).

Uinta County

Evanston vicinity, *Bridger Antelope Trap*, east of Evanston off U.S. 189 (1-31-74).
Fort Bridger vicinity, *Fort Bridger*, on Black's Fork of the Green River near town of Fort Bridger.
Hilliard vicinity, *Piedmont Charcoal Kilns*, 14 miles northeast of Hilliard.

Weston County

Newcastle vicinity, *Jenney Stockade*.

Historic properties which are either (1) eligible for nomination to the National Register of Historic Places or (2) nominated but not yet listed are entitled to protection under Executive Order 11593. Before an agency of the Federal Government may undertake any project which may have an effect on such a property, the Advisory Council on Historic Preservation shall be given an opportunity to comment on the proposal. Authorization for such comments are in section 1(3) and section 2(b) of Executive Order 11593.

The Secretary of the Interior has determined that the following properties may be eligible for inclusion in the National Register of Historic Places and are therefore entitled to protection under section 1(3) and section 2(b) of Executive Order 11593 and other applicable Federal legislation. All determinations of eligibility are made under the Secretary of the Interior's authorities in sections 2(b) and 3(f) of Executive Order 11593. This list is not complete. As required by Executive Order 11593, an agency head shall refer any questionable actions to the Secretary of the Interior for an opinion respecting the property's eligibility for inclusion in the National Register.

Alabama

Dallas County

Selma, *Gill House*, 1109 Selma Avenue.

Madison County

Huntsville, *Lee House*, Red Stone Arsenal.

Alaska

Northwestern District

Little Diomede Island, *Iyapana, John, House*.

Arizona

Coconino County

Grand Canyon National Park, *Old Post Office*.
Grand Canyon National Park, *O'Neill, Buckey, Cabin*.
Grand Canyon National Park, *Ranger's Dormitory*.
Sedona vicinity, *Mayhew's Lodge*, N of Sedona on U.S. 89A in Coconino National Forest.

Maricopa County

Carefree vicinity, *Brazaletes Pueblo*, northeast of Carefree in Tonto National Forest.

Pima County

Tucson vicinity, *Old Santan*, NW of Tucson.

Yuma County

Wickenburg vicinity, *Harquahala Peak Observatory*, SW of Wickenburg.
Yuma, *Southern Pacific Depot*.

Arkansas

Ouachita County

Camden, *Old Post Office*, Washington Street.

California

Calaveras County

New Melones Historical District, New Melones Lake Project area, Stanislaus River (also in Tuolumne County).

Imperial County

Glamis vicinity, *Chocolate Mountain Archeological District*.

Marin County

Point Reyes, *Point Reyes Light Station*.

Mariposa County

Yosemite National Park, *Degnan Residence and Bakery*, Southside Drive.

Modoc County

Alturas vicinity, *Bell Spring*, about 30 miles north of Alturas in Modoc National Forest.
Alturas vicinity, *Yellowjackets Landing*, NW of Alturas in Modoc National Forest.
Canby vicinity, *Sevenmile Flat*, NW of Canby in Modoc National Forest.

Monterey County

Big Sur, *Point Sur Light Station*.
King City vicinity, *Painted Cave*, SW of King City on Hunter Liggett Military Reservation.
Pacific Grove, *Point Pinos Light Station*.

Riverside County

Blythe vicinity, *Blythe Intaglios, Indian Intaglios*, N of Blythe on U.S. 95.
Twentynine Palms, *Cottonwood Oasis (Cottonwood Springs)*, Joshua Tree National Monument.

San Bernardino County

Twentynine Palms, *Twentynine Palms Oasis*, Joshua Tree National Monument.

San Luis Obispo County

San Luis Obispo, *San Luis Obispo Light Station*.

San Mateo County

Ano Nuevo vicinity, *Pigeon Point Light Station*.
Hillsborough, *Point Montara Light Station*.

Shasta County

Whiskeytown, *Irrigation System (165 and 166)*, Whiskeytown National Recreation Area.

Sonoma County

Dry Creek-Warm Springs Valley Archeological District.
Santa Rosa, *Santa Rosa Post Office*.

Siskiyou County

Thomas-Wright Battle Site, Lava Beds National Monument.

Colorado

Denver County

Denver, *Eisenhower Memorial Chapel*, Building No. 27, Reeves Street, on Lowry AFB.
Denver, *West Side Housing Historic District*, bounded by W. Colfax, W. 10th, Mariposa, and Speer Streets.

Eagle County

Wolcott, *Wolcott Stage Station*.

Jefferson County

Littleton vicinity, *Hildebrand Ranch*, SW of Littleton.

Rio Blanco County

Meeker vicinity, *Thornburgh Monument*, NE of Meeker on Thornburgh Road 9 miles from junction CO 13 and 789.
Rangely vicinity, *Cañon Pintado*, S of Rangely on Highway 139.
Rangely vicinity, *Carrot Men Pictograph Site*, SW of Rangely and W of Rangely Dragon Road.

Connecticut

Hartford County

Hartford, *Church of the Good Shepherd and Parish House*, intersection of Wyllys Street and Van Block Avenue.
Hartford, *Colt Factory Housing*, Huyshope Avenue between Sequassen and Weehassett Streets.
Hartford, *Colt Factory Housing (Potsdam Village)*, Curcombe Street between Hendricxsen Avenue and Locust Street.
Hartford, *Colt Park*, bounded by Wethersfield Avenue, Stonington, Wawarme, Curcombe, and Masseek Streets, and by Huyshope and Van Block Avenues.
Hartford, *Colt, Colonel Samuel, Armory, and related factory buildings*, Van Dyke Avenue.
Hartford, *Flat-Iron Building (Motto Building)*, intersection of Congress Street and Maple Avenue.
Hartford, *Houses on both sides of Congress Street*.
Hartford, *Houses on Charter Oak Place*.
Hartford, *Houses on Wethersfield Avenue*, between Morris and Wyllys Streets, particularly Nos. 97–81, 65.

Middlesex County

Middletown, *Mather-Douglas-Santangelo House*, 11 South Main Street.

New Haven County

New Haven, *City Hall and Annex*.
New Haven, *Post Office-Courthouse*, Church and Court Streets.

Appendix E

INTRODUCTION/DESCRIPTION OF UNITS SHOWN ON GEOLOGIC MAP

Most of the study area lacks readily available, comprehensive geologic mapping at a map scale suitable for this study. Previous map compilations (Jennings and Strand, 1969; Durrell, 1954) have scales too small for effective interpretation. The California Division of Mines and Geology (1973) has recently published a compilation of geologic mapping of southern Ventura County at a scale of 1 inch equals 4000 feet (1:48,000). The Division is presently compiling a geologic map of the Santa Monica Mountains at a scale of 1 inch equals 2000 feet (1:24,000). The compilation will be completed next year.

The geologic map compiled for this study at a scale of 1 inch equals 2000 feet (1:24,000), was prepared by reproducing available geologic maps of the area, either directly if at the scale chosen for compilation or by photographically enlarging or reducing the maps to the chosen scale.

The Geologic Map shows the major formation boundaries, folds and faults, and landslides in the study area. Data sources and boundaries are indicated on the map. The geologic unit boundaries are shown as originally mapped, and no attempt was made to resolve mapping differences across common map boundaries. The map is intended to be a general view of the study area for planning purposes. It is not adequate for final engineering design or for construction purposes, although source reliability is considered to be good to excellent.

EXPLANATION OF ROCK UNITS

CRETACEOUS ROCKS
Upper Cretaceous, undifferentiated (Ku)
("Chico Formation") (Marine)

Lithology: In Solstice Canyon - Thick bedded, fine to coarse grained sandstone with interbedded siltstone.

In Zuma Canyon - Very thick bedded sandstone with pebble conglomerate.

In Las Flores Canyon - Massive sandstone and gray siltstone. Closely jointed and fractured.

In Topanga Canyon - Thick bedded sandstone with local conglomerate, interbeds of siltstone and shale. Shattered and fractured.

In Simi Hills - Medium bedded to massive, well indurated arkosic sandstone, interbeds of siltstone.

Topography: Cuesta topography in Simi Hills and around Santa Susana Pass: High scenic value. Finer grained section Bell Canyon and Thousand Oaks erodes to gentle slopes, with occasional steep gullies. Forms moderate relief in Malibu area.

Stability: Bedding plane failures may occur on dip slopes where fine grained interbeds dip out of slope. Rock slides and rock falls common along steep slopes where joint sets generate angular outcrops.

Soil: Thin, pebbly, often lacking.

Excavability: Moderate to very difficult.

Seismic Response: Rock falls and rock slides may be initiated in moderate to strong earthquakes.

Mineral Resources: Crushed rock near Chatsworth.

Water Resources: Compact and well indurated units have low permeability. Secondary permeability developed in joints.

Paleontology:	Marine molluscan fauna, clams and snails, ammonites. Fine grained members may contain foraminifera. Few fossils found in Santa Monica Montains portion.

TERTIARY ROCKS
Santa Susana Formation (Tss)
Simi Conglomerate (Tssi)
Paleocene (Marine)

Lithology:	Santa Susana Formation - Fine to coarse grained, friable to well indurated sandstone, some siltstone. Simi Conglomerate - Poor to moderately indurated pebble to boulder conglomerate with interbedded sandstone lenses.
Topography:	Sandstone and conglomerate form resistant ridges, finer grained members form gentle to moderate slopes.
Stability:	Conglomerate maintains steep slopes. Bedding plane failures may develop in sandstone. Rilling occurs in poorly indurated sandstone. Some small scale slumping.
Soil:	Shallow, sandy on sandstone; moderately expansive on siltstone.
Excavability:	Moderate to difficult; may require blasting.
Seismic Response:	Rock falls and slope ravelling may be initiated in moderate to strong earthquake.
Mineral Resources:	Simi Conglomerate is an important source of sand and gravel.
Water Resources:	Locally water bearing; not an aquifer.
Paleontology:	Sandstone beds may contain locally abundant snails of Turritella species.

MARTINEZ FORMATION (Tmz)
(Paleocene-Eocene) (Marine)

Lithology:	In Topanga Canyon - Thick bedded cobble conglomerate and well indurated, thick bedded, medium to coarse grained sandstone; some siltstone beds. In Las Flores Canyon - Thick bedded, fine to medium grained sandstone with interbedded, platy siltstone; closely jointed. Conglomerate at base of section.
Topography:	Cliff-forming; conglomerate very resistant.
Stability:	Rock falls and slides on steep slopes. Bedding plane failures on adverse slopes.
Soil:	Sandy to silty soils.
Excavability:	Moderately difficult. Resistant beds may require blasting.
Seismic Response:	Rock falls may be initiated in moderate to strong earthquake.
Mineral Resources:	None known in study area.
Water Resources:	Low permeability; may be water bearing locally.
Paleontology:	Sparse, poorly preserved molluscan fauna in study area.

LLAJAS FORMATION (Tll)
(Eocene) (Marine)

Lithology:	Basal conglomerate. Fine grained shaley sandstone and siltstone with discontinuous interbeds of medium to coarse grained, poorly to well indurated sandstone and cobble conglomerate. Becomes coarser to the west.
Topography:	Rugged terrain with variable relief.
Stability:	Bedding plane failures on adverse slopes.
Soils:	Thin, sandy soils. Expansive where derived from siltstone or fine grained sandstone.
Excavability:	Easy to difficult, depending on induration.
Seismic Response:	Rock falls, rock slides, and slumps may be initiated in moderate to strong earthquakes.
Mineral Resources:	None known in study area.
Water Resources:	Locally water bearing in upper section. No known aquifers.
Paleontology:	Local molluscan fauna.

SESPE FORMATION (Ts)
(Oligocene) (Non-marine)

Lithology: Thick bedded to massive sandstone and pebbly sandstone, friable to well indurated. Matrix composed of clay, carbonate, or silica. Commonly contains thin interbeds and partings of mudstone or siltstone. Multicolored beds are distinctive part of scenery.

Topography: Cliff-forming with high local relief. Where fine grained and poorly indurated, topography subdued.

Stability: Numerous landslides, bedding plane failures, and rotational slumps on adverse slopes. Rilling and ravelling in unprotected cuts.

Soil: Silty sand and sandy clay; expansive.

Excavability: Rippable with heavy equipment.

Seismic Response: Landslides and rockslides may be initiated in moderate to strong earthquakes.

Mineral Resources: Reservoir rock for petroleum in other area. Unproductive in study area.

Water Resources: Small amounts of ground water encountered in test borings at Pepperdine University. Permeability varies with type of cementing agent.

Paleontology: Non-fossiliferous in Santa Monica Mountains. Mammalian vertebrate fauna discovered in Las Pasas Hills west of the study area.

VAQUEROS FORMATION (Tv)
(Lower Miocene) (Marine and Non-marine)

Lithology: In Malibu Canyon - Medium to coarse grained sandstone and pebbly sandstone, thin to thick bedded with interbedded mudstone and siltstone, minor amounts of tuff and limestone.

In Las Flores and Topanga Canyons - Thick bedded, medium grained sandstone with sharp, persistent bedding surface; some interbeds of mudstone and siltstone.

In Point Dume and Triunfo Pass quadrangles - Medium to coarse grained sandstone and conglomerate interbedded with platy to shaly siltstone. Generally well indurated.

Topography: Forms prominent ledges and ridges. Often rugged terrain.

Stability: Subject to landsliding where extensively fractured. Also prone to bedding plane failures on adverse slopes.

Soil: Silty sand, expansive where clayey.

Exavability: Rippable with heavy equipment; local blasting may be required in well indurated units.

Seismic Response: Rock falls and minor landsliding may be initiated in strong to moderate earthquakes.

Mineral Resources: None known in study area.

Water Resources: Non-water bearing.

Paleontology: Locally abundant marine molluscan fauna, including (Turritella), clams (Pecten sp.), and oysters.

SAN ONOFRE BRECCIA (Tb, Tbv)

(Lower Miocene) (Marine)

Lithology: Medium to coarse grained sandstone with mudstone and siltstone. Includes associated andesite to basalt volcanic flows (commonly vesicular), pillow lavas, and flow breccias (Tbv).

Topography: Forms cliffs and moderately steep slopes.

Stability: Unstable in cliffs, especially in poorly indurated units.

Soil: Silty to clayey soils; may be expansive.

Excavability: Easy to difficult.

Seismic Response: Rockslides and rock falls may be initiated in moderate to strong earthquakes.

Mineral Resources: None known in study area.

Water Resources: Generally non-water bearing.

Paleontology: Fine grained sediments contain foraminifera.

LOWER TOPANGA FORMATION Ttl)
(Middle Miocene) (Marine and Non-marine)

Lithology:	In Encinal Canyon - Dark to gray platy to shaly siltstone and mudstone. Near Castro Peak - Medium to coarse grained sandstone with interbedded platy to shaly siltstone, locally conglomeratic. In Malibu quadrangle - Fine to coarse grained, pebbly sandstone, and sandy, micaceous jointed siltstone. Pebble conglomerate at base. In Topanga quadrangle - Thin to thick bedded, fine to coarse grained sandstone, and siltstone interbeds with clay layers. Minor amounts of tuff and limestone.
Topography:	Variable relief, sandstone forms resistant ridges. Finer grained units form valleys and rounded hills.
Stability:	Bedding plane failures, especially in strata with clay partings. Rockslides, slumps on steep slopes.
Soils:	Silty and sandy soil. May be moderately expansive where developed on fine grained parent material. Prone to mudflow.
Excavability:	Rippable with heavy equipment except in tuffaceous or well indurated units.
Seismic Response:	Landslides, slumps, rockslides may be initiated in moderate to strong earthquake, especially when saturated.
Mineral Resources:	Limited potential for use as fill or road base material.
Water Resources:	Locally water bearing; sufficient to form ephemeral seeps.
Paleontology:	Abundant marine molluscan fauna including Turritella sp. (snails) and giant Pectens. Oysters found in brackish water units.

CONEJO VOLCANICS (Tcv) and INTRUSIVE VOLCANICS (Ti)
(Middle Miocene)

Lithology:	Tcv: Layered, dark gray basalt and andesite flows, pillow basalt, flow breccia, tuff, diabase. Minor amounts of interbedded sandstone and black, shaly siltstone. Ti: Chiefly basalt, some andesite and diabase. Sills, dikes and irregular bodies. Commonly intruded along fault planes.
Topography:	Generally rugged terrain with steep, V-shaped canyons. Thousands of feet of relief. Where deeply weathered as at Monte Nido, forms bowl-shaped depressions and valleys.
Stability:	Generally stable. Rock falls common on steep slopes. Mudflows possible on thin soil. Bedrock landslides are rare.
Soil:	Sparse to non-existent on resistant rock. Where developed on less resistant rock, thick and expansive.
Excavability:	May require considerable blasting except in weathered units which are rippable with heavy equipment.
Seismic Response:	Rock falls and rockslides may be initiated in moderate to strong earthquakes.
Mineral Resources:	Source of crushed and broken stone. Generally too reactive for use in Portland Cement Concrete.
Water Resources:	Water bearing in fractures and vugs. Primary permeability is extremely low.
Paleontology:	Generally non-fossiliferous. May contain foraminifera in sedimentary beds.

MIDDLE TOPANGA FORMATION (Ttv)
(Middle Miocene) (Marine)

Lithology:	Basalt and andesite flows and flow breccias. Interbedded with sandstone, siltstone, and sedimentary breccia.
Topography:	Resistant rocks form steep slopes and cliffs. Easily erodible rocks weather to bowl-shaped depressions.
Stability:	Generally stable. Rock falls common on steep slopes. Mudflows possible on thin soil. Bedrock landslides are rare.
Soil:	Sparse to non-existent on resistant rock. Where developed on less resistant rock, thick and expansive.
Excavability:	May require considerable blasting except in weathered units which are rippable with heavy equipment.
Seismic Response:	Rock falls and rockslides may be initiated in moderate to strong earthquakes.
Mineral Resources:	None known in study area.
Water Resources:	Non-water bearing.
Paleontology:	Non-fossiliferous, except for interbedded dark shales which may contain fish scales.

UPPER TOPANGA FORMATION (Ttu)
UNDIFFERENTIATED TOPANGA FORMATION (Tt)
(Middle Miocene) (Marine)

Lithology: In Santa Monica Mountains - Medium to coarse grained, irregular medium to thick bedded sandstone with interbedded siltstone and shale. Shale may be micaceous, fissile, well indurated, diatomaceous, or phosphatic.

In Malibu Canyon - Thin to thick bedded, medium to coarse grained sandstone, siltstone, silty shale with sedimentary breccia.

In Simi Hills - Thick bedded to massive sandstone and conglomerate with some shale and siltstone.

Topography: Variable; valleys and round hills to steep, rugged slopes.

Stability: Prone to bedding plane failures, rockslides, and slumps.

Soil: Silty, sandy soil, locally pebbly. Silty and clayey soil may be expansive.

Excavability: Generally rippable with heavy equipment.

Seismic Response: Landslides, surficial slumping, rockslides may be initiated in moderate to strong earthquakes, especially when saturated.

Mineral Resources: None known in study area.

Water Resources: Locally water bearing; sufficient to form ephemeral seeps; deep well water is brackish.

Paleontology: Abundant foraminifera, fish scales, poorly preserved pectens. Some plant remains in Topanga area. High spired snails, Turritella sp.

MONTEREY/MODELO FORMATION (Tm)
MODELO FORMATION (Tmo)
(Upper Miocene) (Marine)

Lithology:	Monterey Formation - South of Malibu Coast fault: Laminated or platy shale and siltstone, locally diatomaceous, porcelaneous or dolomitic; some sandstone interbeds. Closely jointed, faulted, and tightly folded. Modelo Formation (Tmo) - Platy, diatomaceous shale mudstone and siltstone; laminated, fine to coarse grained, interbedded siltstone. Tm - Thin bedded to finely laminated, siliceous, diatomaceous, cherty, clayey, porcelaneous shale and siltstone. Generally fissile. Includes so-called "burnt shale": red, brown, thin bedded shale. A product of combustion and intraformational petroleum at depth. Also includes thick bedded to massive, friable to moderately well indurated sandstone units, and brown to white, weathered montmorillonitic volcanic ash (bentonite).
Topography:	Areas underlain by dense, siliceous shale and sandstone develop resistant ridges and steep sided canyons. Shale and siltstone terrain is subdued, with rolling hill crests and moderately steep to gentle slopes.
Stability:	Prone to large and small scale failure: bedding plane, rotational slumps, especially where rock is fractured and very moist. Mudflows initiated by the 1969 floods. Gypsum or caliche may indicate unstable zones.
Soil:	Yields expansive slopewash, colluvium and soil from finer grained rocks. Sandstone yields silty sand soils.
Excavability:	Little to moderate difficulty with conventional equipment.
Seismic Response:	Landslides and slumps may be initiated by a moderate to strong earthquake.
Mineral Resources:	Burnt shale used for decorative and dimension stone.

Water Resources: locally water bearing. Low permeability.

Paleontology: Fish scales, plant remains; few megafossils.

SAUGUS FORMATION (TQs)
(Upper Pliocene to Lower Pleistocene)(Marine and Non-marine)

Lithology:	Pebbly, coarse grained sandstone and conglomerate, poorly to well consolidated. Lower units consist of fine grained, clayey sandstone and siltstone.
Topography:	Subdued, rounded hills; locally incised canyons and steep, anti-dip slopes.
Stability:	Small slumps can occur under adverse conditions. Generally weathers in place, with minor slope ravelling.
Soil:	Deep sandy and silty soils. May be expansive when derived from clayey parent material.
Excavability:	Easy.
Seismic Response:	Moderate amplification of propagated waves, possible slumping during moderate and strong earthquakes.
Mineral Resources:	None known in study area.
Water Resources:	Generally water bearing.
Paleontology:	Fossiliferous in lower portion of formation. Contains mostly echinoids (Dendraster sp.) and pectens; some bryozoans and pholad clams.

QUATERNARY DEPOSITS
STREAM TERRACE DEPOSITS (Qt)
MARINE TERRACE DEPOSITS (Qtm)
(Upper Pleistocene to Recent) (Marine and Non-marine)

Lithology:	Qt - Stream terrace deposits. Thickness varies from a few inches to 100 feet. Consists of interbedded gravel, sand, and silt; friable, poorly sorted. Qtm - Marine terrace deposits overlie wave-cut benches on bedrock. Thickness varies from a few inches to 20 feet. Consist of sand, silty sand and gravel; friable, well sorted.
Topography:	Flat to gentle slopes on bench-like terraces along coast (Qtm) and along valleys (Qt).
Stability:	Poor cohesion, except locally cohesive. Subject to bank failures, rilling, mudflow.
Soil:	Complex pattern of soil types, generally gravelly, silty sand for Qtm, and clayey for Qt. Locally expansive.
Excavability:	Easily moved by heavy equipment. May cave in trenches.
Seismic Response:	Slight amplification of propagated waves. Slumping along cut banks.
Mineral Resources:	Potential source of sand and gravel for multiplicity of purposes.
Water Resources:	Locally contains ground water, perched by underlying bedrock. Permeability highly variable: low to moderate. Qtm deposits have generally permeability higher than Qt deposits.
Paleontology:	Marine sands contain molluscan fauna with many modern forms.

LANDSLIDE DEPOSITS (Qls)
(Pleistocene to Recent)

Lithology:	**Varied debris, disrupted and detached bedrock and soil. Bedrock in deposits may be jumbled, brecciated masses or relatively intact.**
Topography:	**Low, hummocky slopes of gentler gradient than adjacent slopes; lobe-shaped accumulations of rock, soil, and organic debris; generally semicircular or elliptical in aerial view. Disturbed and cracked ground commonly visible on more recent slide masses. Mapped area often includes head scarp - steep slope.**
Stability:	**Generally unstable, subject to severe rilling, mudflow, or renewed movement on all or part of the deposits during and after heavy rain, or as consequence of earthquake shaking.**
Soil:	**Local, thick accumulations of expansive soil.**
Excavability:	**Rippable with heavy equipment.**
Seismic Response:	**Sliding and compaction may be initiated in moderate to strong earthquake.**
Mineral Resources:	**None known in study area.**
Water Resources:	**Low permeability; temporarily fully saturated with ground water. Some domestic wells pump water from landslide deposits.**
Paleontology:	**May include fossils from parent materials.**

BEACH DEPOSITS (Qb)
(Recent) (Marine)

Lithology:	Fine to medium grained sand, rounded pebble gravel; thickness less than 25 feet. Dune sand, fine to medium grained, loose, locally greater than 50 feet thick.
Topography:	Surf zone and gently sloping backshore areas along coast. Dunes partially stabilized by vegetation, wind breaks, and roadways.
Stability:	Noncohesive; sand will seek natural angle of repose in slope.
Soil:	Sand, little or no organic matter.
Excavability:	Easy; trenches cave in.
Seismic Response:	Amplification of propagated waves; liquefaction hazard in areas of shallow ground water.
Mineral Resources:	Source of sand.
Water Resources:	Highly permeable. Contains recoverable ground water locally, with moderate to very high total dissolved solids concentration.
Paleontology:	Non-fossiliferous.

ALLUVIUM (Qal)
(Recent) (Non-marine)

Lithology:	Slopewash deposits - Composition depends on properties of bedrock. Thickness ranges from thin veneer to 40 feet grades into alluvial valley fill. Alluvial deposits - Sand, gravel, silt; subrounded boulders locally exceed 5 feet in diameter. Deposits become finer grained downstream where poorly sorted and bedded, loose, pebbly or silty sand interfingers with beach sand along the coast. Thickness is variable and locally exceeds 100 feet at the mouth of Malibu Canyon.
Topography:	Slopewash occurs on smooth hillsides; alluvium occupies valley floors, stream channels and canyon mouths. Carved to form stream terraces and incised 10 to 20 feet in major stream valleys.
Stability:	Where slopes are developed, subject to creep, slump, mudflow, sheetwash and bank failure. Cohesive strength is low to moderate.
Soils:	Sandy; subject to slumping after heavy rain.
Excavability:	Easy; may cave in trenches; boulders may cause problems in digging.
Seismic Response:	Moderate to intense amplification of propagated waves. Slumping along steep slopes. Moderate to high liquefaction potential, depend-upon depth to ground water.
Water Resources:	Moderate to high permeability; contains recoverable ground water with moderate to high total dissolved soils content.
Mineral Resources:	Sand and gravel source for concrete aggregate.
Paleontology:	Non-fossiliferous.

EXPLANATION AND INTERPRETATION OF SOIL UNITS

Table 11-1is a summary of the properties and features of the soil series occurring in the study area. The table has been constructed to present measurable, inherent soil properties in the columns nearest the soil series name. Interpretive features of the soils are listed to the right of the inherent properties. The information included in this section is taken directly from The Soils of the Malibu Area, 1967, and The Soil Survey of the Ventura Area, 1970, by the Soil Conservation Service. A discussion of each soil property and feature follows Table

Soils and other surficial deposits in the study area are divided into over forty mapping units on the Soils Map. Here is a brief description of these units, taken from the Malibu area and Ventura area Soil Surveys.

Map Symbol	
An	Soils of the Anacapa series are well drained sandy loams and gravelly sandy loams 60 inches or more deep. They are developed on alluvium, and have slopes of 0 to 9 percent. Although they comprise less than 1 percent of the study area, the soils of this series have characteristics which make them suitable for waste water disposal.
Az	Soils of the Azule series are well drained loams and gravelly loams underlain by sandy clay, grading to sandy clay loam. These soils developed on terraces and old alluvial fans and have slopes of 0 to 15 percent.
Ba	The Balcom series consists of well drained calcareous loams 22 to 40 inches deep over soft shale. These soils formed in upland areas and have slopes of 9 to 75 percent. Except for a few places near the extreme north and east boundaries of the study area, Balcom soils are not mapped separately, but are included with Castaic soils.
Ca	The Calleguas soils are well drained shaly loams less than 20 inches deep and are underlain by shale or sandstone. They are upland soils with slopes of 9 to 50 percent.
Cc	The Castaic series consists of well drained silty clay loams 22 to 40 inches deep over soft shale. They are upland soils with slopes of 9 to 75 percent.
Ch	The Chualar series consists of deep, moderately well drained sandy loam with sandy clay loam subsoils. They are developed on alluvial terraces in upland valleys and have slopes of 0 to 9 percent.
Ci	Cibo soils are well drained clays 24 to 54 inches deep over igneous rock. They are upland soils with slopes of 5 to 30 percent.
CB	Coastal beaches are sandy beach and dune areas which may be subject to tidal inundation.
Co	The Corralitos series consists of excessively drained

TABLE 11-1

SOIL SERIES PROPERTIES AND INTERPRETIVE FEATURES

Soil Series	USDA Texture	Relief (% Slope)	Shrink-Swell	Capability Unit	Hydrologic Soil Group	Septic Tank Filter Field Limitations	Spray Irrigation Suitability
Anacapa	Sandy Loam	0-9	Low	II	B	Slight to Moderate	Very good
Azule	Loam	0-15	High	III	C	Severe	Good-fair
Balcom	Silty Clay Loam	9-75	Moderate	III-VII	B	Severe	Fair
Calleguas	Shaley Loam	9-50	Moderate	VII	C-D	Severe	Fair
Castaic	Silty Clay	9-75	Moderate	VI	C	Severe	Fair
Chualar	Sandy Clay Loam	0-9	Moderate	I	B	Severe	Good
Cibo	Clay	5-30	High	II	D	Severe	Fair
Coastal Beach	Sand	-	Low	VIII	A	Severe	Poor
Conejo	Silty Clay Loam	2-9	Moderate	III	C	Severe	Good
Corralitos	Loamy Sand	0-9	Low	III	A	Slight to Moderate	Very good
Cropley	Clay	0-9	High	II	D	Severe	Poor
Diablo	Clay	9-50	High	III-VI	D	Severe	Poor
Dumps	Variable	-	Variable	VIII	D	Severe	Poor
Elder	Sandy Loam	0-9	Low	I-II	B	Slight to Moderate	Very good
Fill Land	Variable	-	Variable	IV	B	Severe	Poor
Garretson	Loam	0-9	Moderate	II	B	Slight to Moderate	Very good
Gaviota	Rocky Sandy Loam	15-50	Low	VII	D	Severe	Poor
Gazos	Silty Clay Loam	15-75	Moderate	IV-VII	C	Severe	Fair

Gilroy	Clay Loam	9-30	Moderate to High	III-VI	C	Severe	Fair
Gullied Land/ Badlands	(No soil)	-	Moderate	VIII	D	Severe	Poor
Hambright	Clay Loam	15-75	Moderate	VII	D	Severe	Poor
Huerhuero	Fine Sandy Loam	0-30	Moderate	III-V	D	Severe	Poor
Linne	Silty Clay Loam	9-50	Moderate	III-VI	C	Severe	Fair
Lockwood	Loam	2-15	Moderate	III	B	Severe	Fair/poor
Los Osos	Clay Loam	9-50	High	III-VI	C	Severe	Fair
Malibu	Loam	9-50	High	IV-VII	D	Severe	Poor
Millsholm	Loam	9-50	Moderate	VII	D	Severe	Poor
Mocho	Loam	0-9	Moderate	I-II	B	Moderate to severe	Good
Nacimiento	Silty Clay Loam	9-75	Moderate	III-VII	C	Severe	Fair-poor
Palisades	Loam	2-9	Moderate	III	B	Severe	Good
Rincon	Silty Clay Loam	2-30	High	II-VI	D	Severe	Fair
Riverwash and Sandy Alluvial Land	Sand and gravel	- -	Low Low	VIII IV-VII	A A	Severe Moderate to severe	Poor Good-fair
Rockland	(no soil)	-	Variable	VIII	D	Severe	Poor
Salinas	Clay Loam	0-9	Moderate	I-II	C	Severe	Good
San Andreas	Sandy Loam	30-50	Low	VII	B	Severe	Fair
San Benito	Clay Loam	9-75	Moderate	III-VI	C	Severe	Poor
Santa Lucia	Shaley Silty Clay Loam	15-75	Low	IV-VII	C	Severe	Poor
Saugus	Sandy Loam	5-50	Low	VI	C	Severe	Fair
Soper	Loam	25-50	Moderate	VI-VII	C	Severe	Poor

Mocho	Loam	0-9	Moderate	I-II	B	Moderate to severe	Good
Nacimiento	Silty Clay Loam	9-75	Moderate	III-VII	C	Severe	Fair-poor
Palisades	Loam	2-9	Moderate	III	B	Severe	Good
Rincon	Silty Clay Loam	2-30	High	II-VI	D	Severe	Fair
Riverwash and Sandy Alluvial Land	Sand and gravel	- -	Low Low	VIII IV-VII	A A	Severe Moderate to severe	Poor Good-fair
Rockland	(no soil)	-	Variable	VIII	D	Severe	Poor
Salinas	Clay Loam	0-9	Moderate	I-II	C	Severe	Good
San Andreas	Sandy Loam	30-50	Low	VII	B	Severe	Fair
San Benito	Clay Loam	9-75	Moderate	III-VI	C	Severe	Poor
Santa Lucia	Shaley Silty Clay Loam	15-75	Low	IV-VII	C	Severe	Poor
Saugus	Sandy Loam	5-50	Low	VI	C	Severe	Fair
Soper	Loam	25-50	Moderate	VI-VII	C	Severe	Poor
Sorrento	Loam	0-9	Moderate	I-III	B-C	Slight to moderate	Very good
Vina	Loam	0-9	Moderate	II	B	Moderate	Very good/ good
Yolo	Silt Loam	2-9	Moderate	II	B	Moderate	Good
Ysidora	Sandy Loam	5-15	High	IV	D	Severe	Poor
Zamora	Loam	2-15	Moderate	II-III	C	Severe	Good

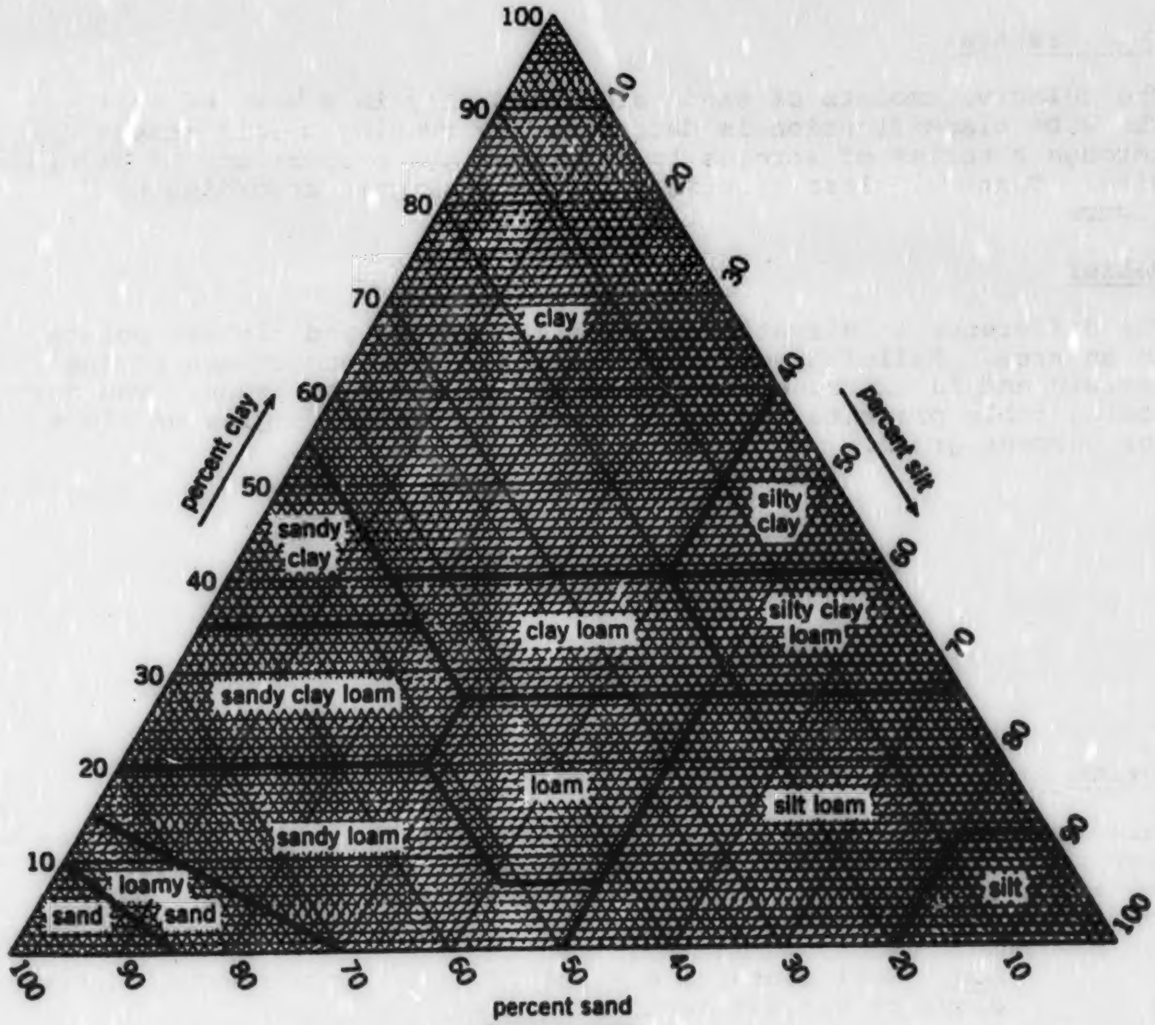
Map Symbol	
Gi	The Gilroy series consists of well drained clay loams 21 to 40 inches deep over hard basic igneous rock. These soils have developed in upland areas and have slopes of 9 to 50 percent.
GL	This category includes gullied lands and badlands. Very rapid runoff and high erosion hazard characterize this unit. Typically only a thin soil cover is present.
Ha	Hambright soils are well drained heavy loams with a clay loam subsoil and are 6 to 19 inches deep over basic volcanic rock. They are mountain soils with slopes of 15 to 75 percent.
Hu	The Huerhuero series consists of moderately well drained very fine sandy loams with a sandy clay subsoil. These soils formed on alluvial fans and terraces and have slopes of 0 to 30 percent.
Ln	Linne soils are well drained silty clay loams 24 to 48 inches deep over soft calcareous shale and fine grained sandstone. They occupy rolling to steep uplands with slopes of 9 to 50 percent.
Ld	The Lockwood series consists of well drained loams and clay loams 60 or more inches deep. These soils have formed on alluvial terraces and have slopes of 2 to 15 percent.
Lo	Los Osos soils are well drained clay loams with a clay subsoil and are 22 to 48 inches deep over sandstone or shale. They are upland soils with slopes of 9 to 50 percent.
Ma	The Malibu series consists of well drained loams that are underlain by a clay subsoil at a depth of 10 to 18 inches. These soils are 23 to 38 inches deep over sandstone and shale and have slopes at 9 to 50 percent.
Mi	The Millsholm series consists of well drained loams 10 to 20 inches deep over sandstone or shale. These are upland soils with slopes of 15 to 75 percent.
Mo	The Mocho series consists of well drained loams, gravelly loams and clay loams 60 or more inches deep. These soils formed on alluvial plains and fans in alluvium derived predominantly from sedimentary rocks. Slopes are 0 to 9 percent.

Map Symbol	
Na	Nacimiento soils are well drained calcareous silty clay loams 24 to 40 inches deep over soft to firm shale. They are upland soils with slopes of 9 to 75 percent.
Pa	Palisades soils are well drained loams with hare clay loam subsoils at about 18 inches depth. These soils are up to 60 inches deep and are developed on alluvial terraces with slopes of 1 to 9 percent. They are found only in the Pacific Palisades area.
Rn	The Rincon series consists of well drained silty clay loams with a sandy clay subsoil at a depth of about 16 inches. Rincon soils are 60 or more inches deep and have formed on old alluvial fans and terraces. Slopes are 2 to 30 percent.
RW	Riverwash and sandy alluvial land occur in and along stream channels and consist of stony and gravelly sand with small amounts of silt and clay. These stratified deposits are 60 or more inches deep.
R	Rockland of all types but most commonly volcanic rocks, shale and sandstone. Little or no soil cover.
Sa	Salinas soils are well drained clay loam 60 or more inches deep. They formed on alluvial fans and plains with slopes of 0 to 9 percent.
Sb	The San Andreas series consists of well drained sandy loams 60 inches deep over soft sandstone and loose sandy and gravelly deposits. These are upland soils with slopes of 30 to 50 percent.
Sc	The San Benito series consists of well drained clay loams 40 to 60 inches deep over loosely consolidated sediments. These are upland soils with slopes of 9 to 75 percent.
Se	The Santa Lucia soils are well drained shaly silty clay loams 20 to 36 inches deep over fractured diatomaceous shale. They are upland soils with slopes of 15 to 75 percent.
Su	The Saugus series consists of well drained sandy loams 48 to 60 inches deep over soft sandstone or shale. These are upland soils with slopes of 5 to 50 percent. Only 100 acres of Saugus soils are present within the Los Angeles County portion of the study area, but are shallower -- 20 to 40 inches deep.

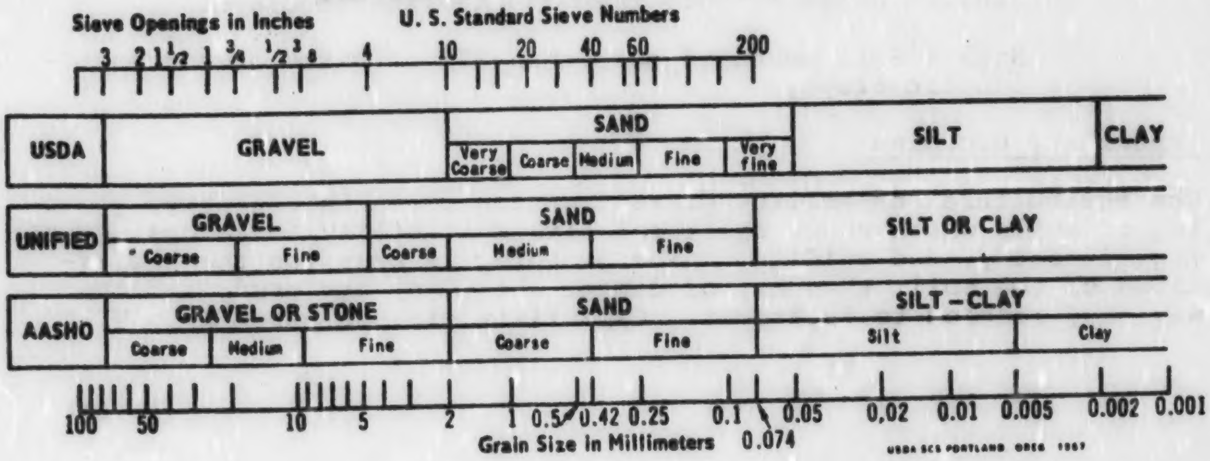
Map Symbol	
Sv	The Soper series consists of well drained loams or gravelly loams that have a subsoil of very gravelly sandy clay loam and are 24 to 58 inches deep over conglomerate. These are upland soils with slopes of 15 to 50 percent. They occur only in the extreme northern part of the study area.
So	The Sorrento series consists of well drained loams and silty clay loams 60 or more inches deep. They have formed on alluvial fans and plains and have slopes of 0 to 9 percent. Within the study area, Sorrento soils represent an important potential source for waste water disposal.
Vi	The Vina series consists of well drained loams, gravelly loams, or silty clay loams 60 or more inches deep. These soils formed on alluvial fans and plains and have slopes of 0 to 9 percent. Vina soils (except silty clay loams) have favorable waste water disposal characteristics.
Yo	The Yolo series consists of well drained silty loams 60 or more inches deep. They have formed on alluvial fans and plains with slopes of 2 to 9 percent. These soils may have some use as waste water disposal sites.
Ys	Ysidora clayey soils are somewhat poorly drained sandy loams 60 or more inches deep with claypan subsoils at 12 to 20 inches. These soils are developed on marine terraces with slopes of 5 to 15 percent.
Zm	The Zamora series consists of well drained loams 60 or more inches deep that have a clay loam subsoil. These soils have formed on alluvial fans and have slopes of 2 to 15 percent.

Map Symbol	
	loamy soils and sands 60 inches or more deep. These soils have formed on alluvium and have slopes of 0 to 9 percent. Corralitos soils have favorable waste water disposal characteristics, but only a few hundred acres are present in the study area.
Cp	The Conejo series consists of silty clay loams developed on alluvial fans. They are underlain at a depth of 4½ to 6 feet by stratified alluvium derived from basic igneous rocks, and have slopes of 0 to 9 percent.
Cr	Soils of the Cropley series are well drained clays 60 or more inches deep. They have formed on alluvial fans and plains, and have slopes of 0 to 9 percent.
Db	Diablo soils are well drained clays 40 to 50 inches deep over soft, fractured, calcareous shale. They are upland soils with slopes of 9 to 50 percent.
Dumps	This land type consists of sanitary land fill dumps and rock and gravel pits.
El	Elder series soils are well drained sandy loams 60 or more inches deep. They have formed on alluvial fans and plains, and have slopes of 0 to 9 percent. The study area contains about 500 acres of these soils. They are generally suitable for waste water disposal.
Fl	Fill land consists of mechanically transported soil and other fill material (such as rock, concrete or asphalt) which has been mixed with existing soils or placed over them so that the original series is no longer recognizable. This unit has been mapped only in the Pacific Palisades area, where it is generally covered by buildings.
Ga	The Garretson series consists of well drained loams and gravelly loams 60 or more inches deep. These soils formed on alluvial fans and plains and have slopes of 0 to 9 percent. Small areas in the northern part of the study area are suitable for waste water disposal.
Gv	Gaviota soils are well drained sandy loams 8 to 20 inches deep over sandstone. They are upland soils with slopes of 15 to 50 percent.
Gz	The Gazos series consists of well drained silty clay loams 24 to 46 inches deep over fractured shale. They are upland soils with slopes of 15 to 75 percent.

GUIDE FOR TEXTURAL CLASSIFICATION



COMPARISON OF PARTICLE SIZE SCALES



USDA Texture

The relative amounts of sand, silt, and clay in a mass of soil. The USDA classification is determined by running a soil sample through a series of screens to determine the proportions of particle size. Textural classifications is then assigned according to Figure

Relief

The difference in elevation between the lowest and highest points in an area. Relief gives an indication of the ruggedness of the terrain and is expressed as percentage of slope or grade. The following table presents the approximate equivalent angles of slope for percent grade.

Slope Equivalents

9%	6°
15%	8½°
30%	16-3/4°
50%	26-1/2°
75%	37°
100%	45°

Shrink-Swell Potential

This is an indicator of the expansiveness of the soil. Expansiveness is a common property of clays and may cause problems during and after construction. Shrink-Swell potential is designated as low, moderate, and high.

Low - Soil contains 0 - 18% of mixed or montmorillonitic clays or 0 - 35% kaolinitic clay.

Moderate - Soil contains 18 - 35% of mixed or montmorillonitic clays or more than 35% kaolinitic clays.

High - Soil contains more than 35% of mixed or montmorillonitic clays.

Capability Grouping

The agricultural capability classification is an interpretive grouping of soils which shows their relative suitability for crops, grazing, forestry, and wildlife. The grouping is based on the limitations of the soil, the risk of damage when they are used, and the way they respond to treatment. Capability classes, from I to VIII indicate progressively greater limitations and narrower choices for practical uses, defined as follows:

Capability Classes

Class I - Soils that have few limitations that restrict their use.

Class II - Soils that have some limitations that reduce the choice of plants if cultivated, or require moderate conservation practices when cultivated.

Class III - Soils that have severe limitations that reduce the choice of plants or require special conservation practices or both when cultivated.

Class IV - Soils that have very severe limitations that restrict the choice of plants, require very careful management, or both when cultivated.

Class V - Soils that are not likely to erode but have other limitations impractical to remove, that limit their use largely to pasture or range, woodland, or wildlife habitat. There are no Class V soils in the study area.

Class VI - Soils that have severe limitations that make them generally unsuited to cultivation and that limit their use largely to pasture, range, or wildlife food and cover.

Class VII - Soils that have severe limitations that make them unsuited to cultivation and that restrict their use largely to grazing, wildlife, or recreation.

Class VIII - Soils and land types with limitations that preclude their use for commercial production of plants and restrict their use to recreation, wildlife, watershed, or to aesthetic purposes.

Note: When a range of capability units is shown in Table for a soil series, the lower capability unit is characteristic of gentler slopes.

Hydrologic Soils Group

Soils are classified in hydrologic groups according to their effect on direct runoff. The major soil features determining hydrologic soil grouping are infiltration rate and water transmission. These two features reflect the structure and porosity of the soil mass:

Group A - Soils having high infiltration rates even when thoroughly wetted, consisting chiefly of deep, well to excessively drained sands and/or gravel. These soils have a high rate of water transmission and would result in low runoff potential.

Group B - Soils have moderate infiltration rates when thoroughly wetted, consisting of moderately deep to deep, moderately well to well drained soils with moderately coarse textures. These soils have a moderate rate of water transmission.

Group C - Soils having slow infiltration rates when thoroughly wetted, consisting chiefly of 1) soils with a layer that impedes the downward movement of water, or 2) soils with moderately fine to fine texture and a slow infiltration rate. These soils have a moderate rate of water transmission.

Group D - Soils having very slow infiltration rates when thoroughly wetted, consisting chiefly of 1) clay soils with a high swelling potential, 2) soils with a high permanent water table, 3) soils with a claypan or a clay layer at or near the surface, and 4) shallow soils over nearly impervious materials. These soils have a very slow rate of water transmission.

Septic Tank Filter Field Limitations

The septic tank filter field is a portion of the septic tank system designed to dispose of the effluent. Major soil features affecting septic tank filter fields are permeability, percolation rate, depth to water table, and depth to impervious bedrock or hardpan. If a soil is too permeable, the effluent seeps through the soil too rapidly to be filtered adequately. On the other hand, if the soil is impermeable, the effluent will not be adequately filtered, either. Three degrees of limitations are used: slight, moderate, and severe:

Slight - Soils with high percolation rates, excessively to well drained, depth to impervious material or to permanent water table is more than 6 feet, and slopes less than 5%.

Moderate - Soils having one or more of the following: moderate percolation rates, moderate to poor drainage, depth to impervious material or to permanent water table is 4 to 6 feet, depth to seasonal water table is 2 to 4 feet, and slopes between 5 to 9%.

Severe - Soils having one or more of the following: slow percolation rates, poor to very poor drainage, depth to impervious material or to permanent water table less than 4 feet, depth to seasonal water table is less than 2 feet, and slopes greater than 9%.

Spray Irrigation Suitability

Soil suitability for spray irrigation of treated effluent is similar to the requirements for crop irrigation: The soil should be well drained, deep, have gentle slopes and moderate water-holding capacigies. For effluent irrigation, the soil should have a rapid intake rate and a low holding capacity. This permits continuous application at high rates without waterlogging the soil.

Four ratings are used for spray irrigation suitability: Very good, good, fair, and poor. Ratings of soils were determined on the basis of slope, hydrologic soil group, and water intake rate as follows:

Very Good - Slopes less than 9%, hydrologic group A, and depth greater than 60 inches. These soils generally correspond to Class I and II soils.

Good - Slopes between 9% and 15%, hydrologic group B, and depths between 24 and 40 inches. These soils generally correspond to Class III soils.

Fair - Slopes between 15% and 30%, hydrologic soil group C, and depths between 10 and 24 inches. These soils generally correspond to Class IV soils.

Poor - Slopes greater than 30%, hydrologic soils group D, and depths less than 10 inches. These soils generally correspond to Class VI, VII, and VIII soils.

Appendix F

EXISTING HIGHWAY TRAFFIC LOADINGS

Highway Section	Highway Type	Right of Way Width	Roadway Width	Estimated Roadway Capacity (C)	Peak Hour Traffic Volumes (V)	V/C	Date of Traffic Count
Pacific Coast Highway (1) (Topanga Cyn. Blvd. for 5 miles)	Major Hwy	100 ft.	52 ft.	1120*	2340*	2.09*	
Pacific Coast Highway (1) (for 2 miles)	Major Hwy	100 ft.	48 ft.	1120*	1950*	1.74*	
Pacific Coast Highway (1) (for 8-1/2 miles)	Major Hwy	100 ft.	44 ft.	1060*	1360*	1.28*	
Pacific Coast Highway (1) (to Ventura County Line)	Major Hwy	100 ft.	48 ft.	1120*	975*	.87*	
Topanga Canyon Blvd. (27)	Major Hwy	50 ft.	24 ft.	690	1200	1.74	
Decker Road (23) (from Pacific Coast Hwy for 1-1/2 miles)	Secondary Hwy	40 ft.	16 ft.	370	150	0.41	
Decker Road-Westlake Blvd. (27) (to Agoura Rd)	Major Hwy	60 ft.	56 ft.	1580	260	0.16	
Westlake Blvd (27) (Agoura Rd. to Ventura Fwy)	Major Hwy	100 ft.	88 ft.	3350	1200	0.36	
Malibu Canyon Road (Pacific Coast Hwy to Civic Center)	Major Hwy	100 ft.	80 ft.	2370	1970	0.83	5/26/74 Sunday
Malibu Canyon Road (Civic Center to Pluma Rd)	Major Hwy	80 ft.	26 ft.	640	1440	2.25	8/18/74 Sunday
Las Virgenes Road (Pluma Rd to Ventura Fwy)	Major Hwy	60 ft.	26 ft.	640	1400	2.19	8/18/74 Sunday
Las Virgenes Road (Ventura Fwy to Thousand Oaks Blvd)	Major	100 ft.	84 ft.	2370	290	0.12	7/ 3/74 Wednesday
Encinal Canyon Road	Major Hwy	60 ft.	26 ft.	570	130	0.24	5/27/74 Monday
Little Sycamore Canyon Road	Major Hwy	60 ft.	22 ft.	490	20*	0.04	

(CONTINUED)

EXISTING HIGHWAY TRAFFIC LOADINGS

Highway Section	Highway Type	Right of Way Width	Roadway Width	Estimated Roadway Capacity (C)	Peak Hour Traffic Volumes (V)	V/C	Date of Traffic Count	
Stunt Road	Secondary Hwy	60 ft.	24 ft.	570	30	0.06	9/16/74	Monday
Schueren Road	Secondary Hwy	60 ft.	24 ft.	570	30	0.06	11/ 7/74	Thursday
Rambla Pacifico Rd.	Secondary Hwy	60 ft.	24 ft.	570	110	0.20	11/ 6/74	Wednesday
Piuma Road	Secondary Hwy	60 ft.	26 ft.	570	120	0.22	7/ 4/74	Thursday
Calabasas Road (L.A. City line to Parkway Calabasas)	Secondary Hwy	60 ft.	20 ft.	450	310	0.70	9/16/74	Monday
Calabasas Road (Parkway Calabasas to end)	Secondary Hwy	60 ft.	40 ft.	570	180	0.33	9/ 5/74	Thursday
Cornell Road	Secondary Hwy	60 ft.	24 ft.	570	140	0.26	7/28/74	Sunday
Corral Canyon Road	Secondary Hwy	40 ft.	24 ft.	570	80	0.15	10/24/74	Thursday
Latigo Canyon Road	Secondary Hwy	60 ft.	24 ft.	570	40	0.08	11/ 4/74	Monday
Point Dume Road (Pacific Coast Hwy to Cavalleri Rd)	Secondary Hwy	110 ft.	48 ft.	1580	620	0.39	5/26/74	Sunday
Point Dume Road (Cavalleri Rd. to Mulholland Hwy.)	Secondary Hwy	100 ft.	36 ft.	570	620	1.10	5/27/74	Monday
Kimberly Canyon Rd.	Secondary Hwy	100 ft.	24 ft.	570	750	1.32	6/29/74	Saturday
Trifuno Canyon Road	Secondary Hwy	60 ft.	24 ft.	570	40	0.08	11/14/74	Wednesday
Lindero Canyon Road	Secondary Hwy	100 ft.	84 ft	2370	900	0.38	7/ 2/74	Tuesday
Potrero Road (Westlake Blvd to Trafalgar Pl)	Secondary Hwy	84 ft.	64 ft.	1580	170‡	0.11		

(CONTINUED)

EXISTING HIGHWAY TRAFFIC LOADINGS

Highway Section	Highway Type	Right of Way Width	Roadway Width	Estimated Roadway Capacity (C)	Peak Hour Traffic Volumes (V)	V/C	Date of Traffic Count
Kanan Road (Trifuno Cyn Rd. to Agoura Rd)	Major Hwy	100 ft.	48 ft.	1580	660	0.42	7/ 7/74 Sunday
Kanan Road (Agoura Rd to Ventura Fwy)	Major Hwy	100 ft.	56 ft.	1580	990	0.63	8/ 5/74 Monday
Kanan Road (Ventura Fwy. to Thousand Oaks Blvd.)	Major Hwy	100 ft.	84 ft.	2370	880	0.37	8/ 5/74 Monday
Agoura Road (Rondell St. to Cornell Rd.)	Major	80 ft.	20 ft.	450	140	0.33	9/16/74 Monday
Agoura Road (Cornell Rd. to Ventura Fwy.)	Major Hwy	60 ft.	40 ft.	570	190	0.35	6/27/74 Thursday
Agoura Road (Ventura Fwy. to West Lake Blvd.)	Major Hwy	108 ft.	88 ft.	2370	1180	0.50	7/ 8/74 Monday
Thousand Oaks Blvd.	Major Hwy	108 ft.	88 ft.	2370	1180‡	0.50	
Mulholland Highway (Pacific Coast Hwy to Westlake Blvd.)	Parkway	100 ft.	24 ft.	570	100	0.18	
Mulholland Highway (Westlake Blvd. to Old Topanga Cyn. Rd.)	Parkway	80 ft.	24 ft.	570	220	0.45	8/18/74 Sunday
Mulholland HIghway (Old Topanga Cyn. Rd. to Topanga Cyn Blvd.)	Parkway	80 ft.	30 ft.	570	260	0.46	9/17/74 Tuesday
Old Topanga Canyon Road (Topanga Cyn Blvd to Red Rock Rd.)	Secondary Hwy	50 ft.	22 ft.	490	240	0.50	9/17/74 Tuesday
Old Topanga Canyon Road (Red Rock Rd to L.A. City Line)	Secondary	50 ft.	24 ft.	570	120	0.21	9/ 5/74 Friday
Tuna Canyon Road (Pacific Coast Hwy. to Saddle Peak Rd.)	Secondary Hwy	60 ft.	18 ft.	410	40	0.10	10/18/74 Friday
Tuna Canyon Road (North of Saddle Peak Rd)	Secondary Hwy	60 ft.	22 ft.	490	30	0.07	11/ 7/74 Thursday

(CONTINUED)

EXISTING HIGHWAY TRAFFIC LOADINGS

Highway Section	Highway Type	Right of Way Width	Roadway Width	Estimated Roadway Capacity (C)	Peak Hour Traffic Volumes (V)	V/C	Date of Traffic Count
Potrero Road (Trafalgar Place to end)	Secondary Hwy	60 ft.	20 ft.	450		0.39	
Carlisle Road	Secondary Hwy	60 ft.	22 ft.	490		0.07	

Average Daily Traffic Counts, 1973

Appendix G

APPENDIX, FLORAL AND FAUNAL SPECIES LIST

CALABASAS RECLAIMED WATER LINE

LEGEND

FLORAL INVENTORY

Plant Community

CIG - cismontane introduced grassland
CSS - coastal sage scrub
MC - mixed chaparral
SCOW - southern coastal oak woodland

Abundance

D - dominant
C - common
O - occasional
U - uncommon

FAUNAL INVENTORY

Presence

O - observed during March 1977
E - expected to occur on project site

Status - (Abundance/Occurrence)

Occurrence

R - year-round resident
SV - summer visitor
WV - winter visitor
M - migrant

Abundance

C - common
F - frequent
U - uncommon
R - rare or unusual

Habitat - those most commonly used by the species

1 - cismontane introduced grassland
2 - coastal sage scrub
3 - mixed chaparral
4 - southern coastal oak woodland

PLANTS	CIG	CSS	MC	SCOW
AGAVACEAE - AGAVE FAMILY				
Yucca whipplei - our lord's candle native - shrub	-	U	F	-
ANACARDIACEAE - SUMAC FAMILY				
Rhus laurina - laurel sumac native - shrub	-	C	D	O
ASTERACEAE - SUNFLOWER FAMILY				
Artemisia californica - california sagebrush native - shrub	U	D	C	C
Baccharis glutinosa - mule fat native - shrub	-	-	-	F
Cichorium intybus - chicory introduced - herb - annual	)	-	-	-
Encelia californica - California encelia native - shrub	-	D	C	-
Gutierrezia bracteata - San Joaquin matchweed native - shrub	U	C	C	-
Haplopappus venetus - coastal isocoma native - shrub	F	C	U	C
Heterotheca grandiflora - telegraph weed native - annual	C	-	-	-
Xanthium spinosum - spiny clotbur introduced - annual - weed	U	-	-	-
BORAGINACEAE - BORAGE FAMILY				
Amsinckia intermedia - common fiddle-neck native - annual	F	C	-	O

PLANTS (cont'd)

	CIG	CSS	MC	SCON
BRASSICACEAE - MUSTARD FAMILY				
Brassica geniculata - short-podded mustard **introduced - biennial - weed**	O	U	-	-
Brassica nigra - black mustard **introduced - annual - weed**	D	C	U	U
Capsella bursa-pastoris - shepherd's-purse **introduced - annual weed**	C	U	-	-
CAPRIFOIACEAE - HONEYSUCKLE FAMILY				
Sambucus mexicana - elderberry **native - tree**	-	C	O	O
CHENOPODIACEAE - GOOSEFOOT FAMILY				
Atriplex lentiforms - saltbush native - shrub	U	U	-	-
Chenopodium album - lamb's-quarters **introduced - annual - weed**	C	-	-	-
CONVOLVULACEAE - MORNING-GLORY FAMILY				
Cuscuta sp. - dodder **native - parasite**	-	F	F	-
FABACEAE - PEA FAMILY				
Astragalus sp. - locoweed native - annual	F	-	-	-
Lotus scoparius - deerweed **native - shrub**	U	D	C	O
Lupinus bicolor - Lindley's annual lupine **native - annual**	F	U	-	U

PLANTS (cont'd)	CIG	CSS	MC	SCOW
AGACEAE - BEECH FAMILY				
uercus agrifolia - coast live oak native - tree	-	-	-	D
uercus dumosa - scrub oak native - tree or shrub	-	U	C	O
Quercus lobata - valley oak native - tree	-	-	-	F
ERANIACEAE - GERANIUM FAMILY				
Erodium sp. - filaree introduced - weed - annual	O	-	-	-
rodium cicutarium - red-stemmed filaree introduced ann	D	C	O	C
YDROPHYLLACEAE - WATERLEAF FAMILY				
Phacelia sp. - phacelia native - annual	O	U	-	-
RIDACEAE - IRIS FAMILY				
isyrinchium bellum - blue-eyed grass native - perennial herb	U	O	O	U
JUGLANDACEAE - WALNUT FAMILY				
Juglans californica - California walnut native - tree	-	-	U	-
AMIACEAE - MINT FAMILY				
arrubium vulgare - horehound introduced - perennial - weed	F	U	-	U

PLANTS (cont'd)	CIG	CSS	MC	SC
Salvia apiana - white sage native - shrub	-	U	-	-
Salvia leucophylla - white-leaved sage native - shrub	-	O	U	-
Salvia mellifera - black sage native - shrub	-	D	C	O
LILIACEAE - LILY FAMILY				
Calochortus sp. - mariposa lily native - perennial	-	u	u	-
MALVACEAE - MALLOW FAMILY				
Malacothamnus fasciculatus - mesa bushmallow native - shrub	-	u	D	-
Malva parviflora - cheeseweed introduced - annual - weed	C	U	-	
PAPAVERACEAE - POPPY FAMILY				
Eschscholzia californica - California poppy native - annual to perennial herb	F	U	-	
POACEAE - GRASS FAMILY				
Avena barbata - slender wild oat introduced - annual grass - weed	O	-	-	
Avena fatua - wild oat introduced - annual grass - weed	D	C	O	
Bromus diandrus - ripgutgrass introduced - grass - weed - annual	D	C	O	
Bromus rubens - foxtail chess introduced - grass	U	F	U	
Elymus condensatis - giant wild rye native - perennial grass				

PLANTS (cont'd)	CIG	CSS	MC	SCOW
POLYGONACEAE - BUCKWHEAT FAMILY				
Eriogonum cinereum - gray coast eriogonum native - shrub	-	D	C	-
Rumex crispus - curly dock introduced - perennial - weed	U	-	-	-
RHAMNACEAE - BUCKTHORN FAMILY				
Ceanothus sp. - California-lilac native - shrub	-	-	O	-
Ceanothus cuneatus - buck brush native - shrub	-	U	D	-
osa californica - wild rose native - shrub - can be a weed	-	-	U	U
OSACEAE - ROSE FAMILY				
denostoma fasciculata - chamise native - shrub	-	-	D	-
eteromeles arbutifolia - toyon native - shrub	-	C	O	O
CROPHULARIACEAE - FIGWORT FAMILY				
astilleia affinis - Lay & Collie's indian paintbrush - native - perennial herb	-	O	-	U
rthocarpus purpurascens - owl's clover native - annual	F	-	-	U
OLANACEAE - NIGHTSHADE FAMILY				
cotiana glauca - tree tobacco introduced - shrub or tree - weed	U	-	-	U
olanum xanti - purple nightshade native - perennial shrub	O	U	-	O

	Presence	Status	Habitat
AMPHIBIANS			
PELOBATIDAE - SPADEFOOT TOADS			
Scaphiopus hammondi - western spadefoot	E	U/R	1,4
PLETHODONTIDAE - LUNGLESS SALAMANDERS			
Batrachoseps attenuatus - California slender salamander	E	U/R	1,4
Batrachoseps pacificus - Pacific slender salamander			
REPTILES			
ANGUIDAE - ALLIGATOR LIZARDS			
Gerrhonotus multicarinatus - southern alligator lizard	E	U/R	4
COLUBRIDAE - COLUBRID SNAKES			
Lampropeltis getulus - common kingsnake	E	U/R	1,2,3,4
Salvadora hexalepis - western patch-nosed snake	E	U/R	2,3,4
Pituophis melanoleucus - gopher snake	E	F/R	1,2,3,4
Masticophis lateralis - striped racer	E	F/R	2,3,4
Masticophis flagellum - common whipsnake	E	U/R	1,2,4
GEKKONIDAE - GECKOS			
Coleonyx variegatus - banded gecko	E	U/R	2,3,4

REPTILES (cont'd)

	Presence	Status	Habitat
IGUANIDAE - IGUANID LIZARDS			
Phrynosoma coronatum - coast horned lizard	E	U/R	1,2
Sceloporus occidentalis - western fence lizard	O	F/R	1,2,3,4
Uta stansburiana - side-blotched lizard	O	C/R	1,2,3,4
TEIIDAE - WHIPTAIL LIZARDS			
Cnemidophorus tigris - western whiptail	E	F/R	2,3,4
VIPARIDAE - RATTLESNAKES			
Crotalus ruber - red diamond rattlesnake	E	U/R	2,3,4
Crotalus viridis - western rattlesnake	E	U/R	1,2,3,4

BIRDS

	Presence	Status	Habitat
ACCIPITRIDAE - HAWKS AND EAGLES			
Accipiter cooperii - Cooper's hawk	E	U/WV	4
Accipiter striatus - sharp-shinned hawk	E	U/WV	3,4
Aquila chrysaetos - golden eagle	O	U/R	1,2,3,4
Buteo jamaicensis - red-tailed hawk	O	C/R	1,2,3,4
Circus cyaneus - marsh hawk	E	F/WV	1,2,4
Elanus leucurus - white-tailed kite	O	F/R	1,2,4

BIRDS (cont'd)	Presence	Status	Habitat
APODIDAE - SWIFTS			
Aeronautes saxatalis - white-throated swift	0	F/R	1,2
CATHARTIDAE - AMERICAN VULTURES			
Cathartes aura - turkey vulture	0	F/R	1,2,3,4
CHAMAEIDAE - WRENTIT			
Chamaea fasciata - wrentit	0	F/R	2,3
CHARADRIIDAE - PLOVERS			
Charadrius vociferus - killdeer	0	F/R	1
COLUMBIDAE - PIGEONS AND DOVES			
Columba livia - domestic pigeon	0	C/R	1
Streptopelia chinensis - spotted dove	E	C/R	1
Zenaida macroura - mourning dove	0	F/R	1,2,3,4
CORVIDAE - JAYS, MAGPIES, AND CROWS			
Aphelocoma coerulescens - scrub jay	0	F/R	2,3,4
Corvus brachyrhynchos - common crow	0	F/R	1,2
Corvus corax - common raven	0	F/R	1,2,3,4

BIRDS (cont'd)	Presence	Status	Habitat
CUCULIDAE - CUCKOOS AND ROADRUNNERS			
Geococcyx californianus - roadrunner	0	F/R	1,2,3,4
FALCONIDAE - FALCONS			
Falco sparverius - American kestrel	0	F/R	1,2,3,4
FRINGILLIDAE - GROSBEAKS, SPARROWS, AND FINCHES			
Aimophila ruficeps - rufous-crowned sparrow	E	U/R	2
Carpodacus mexicanus - house finch	0	F/R	1,2,3,4
Chondestes grammacus - lark sparrow	E	U/R	1
Junco haemalis - dark-eyed junco	0	F/MV	1,2,3,4
Melospiza melodia - song sparrow	0	C/R	1,4
Passerculus sandwichensis - savannah sparrow	0	F/MV	1,2
Pipilo erythrophthalmus - rufous-sided towhee	0	F/R	2,3,4
Pipilo fuscus - brown towhee	0	C/R	1,2,3,4
Pooecetes gramineus - vesper sparrow	0	F/R	1,2,3
Spinus psaltria - lesser goldfinch	0	F/R	1,2,3,4
Spinus tristis - American goldfinch			
Spizella passerina - chipping sparrow	E	U/R	1
Zonotrichia leucophrys - white-crowned sparrow	0	F/MV	1,2,3,4

BIRDS (cont'd)	Presence	Status	Habitat
HIRUNDINIDAE - SWALLOWS			
Hirundo rustica - barn swallow	E	F/SV	1
Stelgidopteryx ruficollis - rough-winged swallow		F/SV	1
Tachycinetta thalassina - violet-green swallow	0	F/M	1
ICTERIDAE - BLACKBIRDS AND ORIOLES			
Agelaius phoeniceus - red-winged blackbird			
Euphagus cyanocephalus - Brewer's blackbird	0	C/R	1
Molothrus ater - brown-headed cowbird			
Sturnella neglecta - western meadowlark	0	C/R	1,2
LANIIDAE - SHRIKES			
Lanius ludovicianus - loggerhead shrike	0	U/R	1,2,4
MIMIDAE - MOCKINGBIRDS AND THRASHERS			
Mimus polyglottos - mockingbird	0	C/R	1,2,4
Toxostoma redivivum - California thrasher	0	F/R	2,3
MOTACILLIDAE - PIPITS AND WAGTAILS			
Anthus spinoletta - water pipit	0	F/WV	1

BIRDS (cont'd)

	Presence	Status	Habitat
PARIDAE - TITMICE, VERDIN, AND BUSHTIT			
Parus inornatus - plain titmouse	E	U/R	3,4
Psaltriparus minimus - bushtit	O	F/R	2,3,4
PARULIDAE - WOOD WARBLERS			
Dendroica coronata - yellow-rumped warbler	O	C/WV	1,2,3,4
Dendroica petechia - yellow warbler	E	F/M	4
Vermivora celata - orange-crowned warbler	E	F/M	4
PHASIANIDAE - QUAIL AND PHEASANTS			
Lophortyx californicus - California quail	O	F/R	1,2,3,4
PICIDAE - WOODPECKERS			
Colaptes auratus - common flicker	O	F/R	1,2,3,4
Dendrocopos nuttallii - Nuttall's woodpecker	E	F/R	1,3,4
Dendrocopos pubescens - downy woodpecker	E	U/R	4
Melanerpes formicivorus - acorn woodpecker	E	U/R	4
PLOCEIDAE - WEAVER FINCHES			
Passer domesticus - house sparrow	E	F/R	1,2

BIRDS (cont'd)	Presence	Status	Habitat
STRIGIDAE - TYPICAL OWLS			
Bubo virginianus - great-horned owl	E	U/R	1,3,4
Otus asio - screech owl	E	U/R	1,2,3,4
Speotyto cunicularia - burrowing owl	E	U/R	1,2,4
SITTIDAE - NUTHATCHES			
Sitta carolinensis - white-breasted nuthatch	E	U/R	4
STURNIDAE - STARLINGS			
Sturnus vulgaris - starling	O	C/R	1,4
SYLVIIDAE - GNATCATCHERS AND KINGLETS			
Polioptila caerulea - blue-gray gnatcatcher	E	U/R	2,3,4
Polioptila melanura - black-tailed gnatcatcher	E	U/R	2,3
Regulus clendula - ruby-crowned kinglet	E	C/WV	2,3,4
TROCHILIDAE - HUMMINGBIRDS			
Calypte anna - Anna's hummingbird	O	F/R	1,2,3,4
Selasphorus sasin - Allen's hummingbird	E	U/M	3,4

BIRDS (cont'd)	Presence	Status	Habitat
TROGLODYTIDAE - WRENS			
Troglodytes aedon - house wren	E	F/R	2,3,4
Thryomanes bewickii - Bewick's wren	O	F/R	2,3,4
TURDIDAE - THRUSHES, BLUEBIRDS, AND SOLITAIRES			
Catharus guttata - hermit thrush	O	F/WV	3,4
Sialia mexicana - western bluebird	O	U/WV	1,4
Turdus migratorius - American robin	E	U/WV	4
TYRANNIDAE - FLYCATCHERS			
Contopus sordidulus - western wood pewee	E	F/M	1,4
Sayornis nigricans - black phoebe	O	F/R	1,4
Sayornis saya - Say's phoebe	O	F/WV	1,2,4
Tyrannus verticalis - western kingbird	E	F/SV	1,4
Tyrannus vociferans --Cassin's kingbird	E	F/R	1,4
TYTONIDAE - BARN OWLS			
Tyto alba - barn owl	E	F/R	1,2,3,
VIREONIDAE - VIREOS			
Vireo flavifrons - Hutton's vireo	E	F/R	4

MAMMALS	Presence	Status	Habitat
CANIDAE - FOXES AND COYOTES			
Canis latrans - coyote	O	F/R	1,2,3,4
Urocyon cinereoargenteus - gray fox	E	U/R	1,2,3,4
CERVIDAE - DEER			
Odocoileus hemionus - mule deer	O	F/R	2,3,4
CRICETIDAE - RATS AND MICE			
Microtus californicus - California vole	E	U/R	1,2,3
Neotoma fuscipes - dusky-footed woodrat	O	U/R	3,4
Peromyscus boylii - brush mouse	E	F/R	3
Peromyscus californicus - California mouse	E	F/R	3,4
Peromyscus eremicus - cactus mouse	E	F/R	1,2
Peromyscus maniculatus - deer mouse	E	C/R	1,2,3,4
Reithrodontomys megalotis - western harvest mouse	E	U/R	1,2,3,4
DIDELPHIDAE - OPOSSUMS			
Didelphis virginiana - Virginia opossum	E	U/R	2,3,4
FELIDAE - CATS			
Lynx rufus - bobcat	E	R/R	3,4

MAMMALS (cont'd)	Presence	Status	Habitat
GEOMYIDAE - POCKET GOPHERS			
Thomomys bottae - Botta pocket gopher	O	C/R	1,2,3,4
HETEROMYIDAE - KANGAROO RATS AND POCKET MICE			
Dipodomys agilis - pacific kangaroo rat	E	C/R	1,2
Perognathus californicus - California pocket	E	F/R	2,3
Perognathus fallax - San Diego pocket mouse	E	F/R	1,2
Perognathus longimembris - little pocket mouse	E	F/R	2,3
LEPORIDAE - HARES AND RABBITS			
Lepus californicus - black-tailed hare	E	F/R	1,2,3,4
Sylvilagus audubonii - Audubon cottontail	O	F/R	1,2,3,4
MURIDAE - OLD WORLD RATS AND MICE			
Mus musculus - house mouse	E	U/R	1
MUSTELIDAE - WEASELS, BADGERS, AND SKUNKS			
Mephitis mephitis - striped skunk	E	F/R	2,3,4
Mustela frenata - long-tailed weasel	E	U/R	2,3,4
Spilogale gracilis - spotted skunk	E	F/R	2,3,4
Taxidea taxus - badger	E	U/R	2,3,4

MAMMALS (cont'd)	Presence	Status	Habitat
PHYLLOSTOMATIDAE - PHYLLOSTOMATID BATS			
Macrotus californicus - California leaf-nosed bat	E	U/R	1,2,3,4
PROCYONIDAE - RACCOONS			
Procyon lotor - raccoon	E	U/R	2,3
SCIURIDAE - SQUIRRELS			
Sciurus griseus - western gray squirrel	E	F/R	4
Spermophilus beecheyi - California ground squirr	O	C/R	1,2,3
SORICIDAE - SHREWS			
Sorex ornatus - ornate shrew	E	R/V	1,2,3,4
TALPIDAE - MOLES			
Scapanus latimanus - broad-handed mole	E	F/R	1,2,3,4
VESPERTILIONIDAE - EVENING BATS			
Several species	E	F/R	1,2,3,4

APPENDIX

Floral and Faunal Species Lists

Sludge Disposal Sites

LEGEND

FLORAL INVENTORY

Plant Community

CIG -Cismontaine Introduced Grassland

Abundance

D - dominant
C - common
O - occasional
U - uncommon

FAUNAL INVENTORY

Presence

O - observed during May 1977
E - expected to occur on project site

Status - (Abundance/Occurance)

Occurence
R - year-round resident
SV - summer visitor
WV - winter visitor
M - migrant

Abundance
C - common
F - frequent
U - uncommon
R - rare or unusual

PLANTS	CIG
APIACEAE - CARROT FAMILY	
Foeniculum vulgare - sweet feenel (introduced - herb perennial)	O
Anthenus cotula - mayweed (annual herb)	U
ASCLEPIAPACEAE - MILKWEED FAMILY	
Asclepias speciosa - showy milkweed (native-perennial)	U
ASTERACEAE - SUNFLOWER FAMILY	
Artemisia californica - california sagebrush (native - shrub)	U
Cirsium occidentale - thistle (introduced - weed)	D
Cichorium intybus - chicory (introduced - herb - annual)	O
Gnaphalium chilense - cudweed (native - annual)	O
Gutierrezia bracteata - San Joaquin matchweed (native - shrub)	U
Haplopappus venetus - coastal isocoma (native - shrub)	C
Heterotheca grandiflora - telegraph weed (native - annual)	C
Kanthium spinosum - spiny clotbur (intruduced - annual - weed)	U
BORAGINACEAE - BORAGE FAMILY	
Amsinckia intermedia - common fiddle-neck (native - annual)	C

PLANTS (cont'd.)

	CIG
BRASSICACEAE - MUSTARD FAMILY	
Brassica geniculata - short-podded mustard (introduced - biennial - weed)	C
Brassica nigra - black mustard (introduced - annual - weed)	O
Capsella bursa-pastoris - shepherd's-purse (introduced - annual - weed)	C
Raphanus sativus - wild radish (introduced - annual)	U
CAPRIFOIACEAE - HONEYSUCKLE FAMILY	
Sambucus mexicana - elderberry (native - tree)	U
CHENOPODIACEAE - GOOSEFOOT FAMILY	
Atriplex lentiforms - saltbush (native - shrub)	U
Chenopodium album - lamb's-quarters (introduced - annual - weed)	C
CUCURBITACEAE - GOURD FAMILY	
Cucurbita foetidissima - calabazilla (native - herb)	O
EUPHORBIACEAE - SPURGE FAMILY	
Eremocarpus setigerus - dove weed	U
FABACEAE - PEA FAMILY	
Astragalus sp. - locoweed (native - annual)	C
Lotus scoparius - deerweed (native - shrub)	U
Lupinus bicolor - Lindley's annual lupine (native - annual)	C

PLANTS (cont'd.)
FABACEAE - PEA FAMILY (cont'd.)

	CIG
Medicago sativa - alfalfa (introduced - perennial)	D
Melilotus indica - sweet clover (introduced - perennial herb)	U
FAGACEAE - BEECH FAMILY	
Quercus lobata - valley oak (native - tree)	U
GERANIACEAE - GERANIUM FAMILY	
Erodium sp. - filaree (introduced - weed - annual)	O
Erodium cicutarium - red-stemmed filaree (introduced - annual)	D
Geranium dissectum - cut-leaved geranium (introduced - annual)	U
HYDROPHYLLACEAE - WATERLEAF FAMILY	
Phacelia sp. - phacelia (native - annual)	O
IRIDACEAE - IRIS FAMILY	
Sisyrinchium bellum - blue-eyed grass (native - perennial herb)	U
LAMIACEAE - MINT FAMILY	
Marrubium vulgare - horehound (introduced - perennial - weed)	C
LILIACEAE - LILY FAMILY	
Calochortus sp. - mariposa lily (native - perennial)	U

PLANTS (cont'd.)

	CIG
MALVACEAE - MALLOW FAMILY	
Malva parviflora - cheeseweed (introduced - annual - weed)	C
PAPAVERACEAE - POPPY FAMILY	
Eschscholzia californica - California poppy (native - annual to perennial herb)	C
POACEAE - GRASS FAMILY	
Avena barbata - slender wild oat (introduced - annual grass - weed)	O
Avena fatua - wild oat (introduced - annual grass - weed)	D
Bromus diandrus - ripgutgrass (introduced - grass - weed - annual)	D
Bromus rubens - foxtail chess (introduced - grass - weed - annual)	D
Elymus condensatis - giant wild rye (native - perennial grass)	U
Hordeum leporidium - wild barley (introduced - annual grass)	O
POLYGONACEAE - BUCKWHEAT FAMILY	
Rumex crispus - curly dock (introduced - perennial - weed)	O
SCROPHULARIACEAE - FIGWORT FAMILY	
Orthocarpus purpurascens - owl's clover (native - annual)	C
SOLANACEAE - NIGHTSHADE FAMILY	
Nicotiana glauca - tree tobacco (introduced - shrub or tree - weed)	U
Solanum xanti - purple nightshade (native - perennial shrub)	O

	PRESENCE	STATUS
AMPHIBIANS		
PELOBATIDAE - SPADEFOOT TOADS		
Scaphiopus hammondi - western spadefoot	E	U/R
PLETHODONTIDAE - LUNGLESS SALAMANDERS		
Batrachoseps attenuatus - California slender salamander	E	U/R
Batrachoseps pacificus - pacific slender salamander	E	U/R
REPTILES		
COLUBRIDAE - COLUBRID SNAKES		
Lampropeltis getulus - common kingsnake	E	U/R
Pituophis melanoleucus - gopher snake	O	F/R
Masticophis flagellum - common whipsnake	E	U/R
IGUANIDAE - IGUANID LIZARDS		
Phrynosoma coronatum - coast horned lizard	E	U/R
Sceloporus occidentalis - western fence lizard	E	F/R
Uta stansburiana - side-blotched lizard	E	C/R
TEIIDAE - WHIPTAIL LIZARDS		
Cnemidophorus tigris - western whiptail	E	F/R
VIPARIDAE - RATTLESNAKES		
Crotalus viridis - western rattlesnake	E	U/R
BIRDS		
ACCIPITRIDAE - HAWKS AND EAGLES		
Aquila chrysaetos - golden eagle	E	U/R

BIRDS (cont'd.)

	PRESENCE	STATUS
ACCIPITRIDAE - HAWKS AND EAGLES (cont'd.)		
Buteo jamaicensis - red-tailed hawk	O	C/R
Circus cyaneus - marsh hawk	E	F/WV
Elanus leucurus - white-tailed kite	O	F/R
ALAUDIDAE - LARKS		
Eremophila alpestris - horned lark	E	F/R
APODIDAE - SWIFTS		
Aeronautes saxatalis - white-throated swift	O	F/R
CATHARTIDAE - AMERICAN VULTURES		
Cathartes aura - turkey vulture	O	F/R
CHAMAEIDAE - WRENTIT		
Chamaea fasciata - wrentit	O	F/R
CHARADRIIDAE - PLOVERS		
Charadrius vociferus - killdeer	O	F/R
COLUMBIDAE - PIGEONS AND DOVES		
Columba livia - domestic pigeon	O	C/R
Streptopelia chinensis - spotted dove	E	C/R
Zenaida macroura - mourning dove	O	F/R
CORVIDAE - JAYS, MAGPIES, AND CROWS		
Aphelocoma coerulescens - scrub jay	O	F/R
Corvus brachyrhynchos - common crow	O	F/R
Corvus corax - common raven	O	F/R

BIRDS (cont'd.)

	PRESENCE	STATUS
CUCULIDAE - CUCKOOS AND ROADRUNNERS		
Geococcyx californianus - roadrunner	O	F/R
FALCONIDAE - FALCONS		
Falco sparverius - American kestrel	O	F/R
FRINGILLIDAE - GROSBEAKS, SPARROWS, AND FINCHES		
Carpodacus mexicanus - house finch	O	F/R
Chondestes grammacus - lark sparrow	E	U/R
Junco haemalis - dark-eyed junco	O	F/WV
Melospiza melodia - song sparrow	O	C/R
Passerculus sandwichensis - savannah sparrow	O	F/MV
Pipilo erythrophthalmus - rufous-sided towhee	O	F/R
Pipilo fuscus - brown towhee	O	C/R
Pooecetes gramineus - vesper sparrow	O	F/R
Spinus psaltria - lesser goldfinch	O	F/R
Spinus tristis - American goldfinch	O	F/R
Spizella passerina - chipping sparrow	E	V/R
Zonotrichia leucophrys - white-crowned sparrow	O	F/MV
HIRUNDINIDAE - SWALLOWS		
Hirundo rustica - barn swallow	E	F/SV
Stelgidopteryx ruficollis - rough-winged swallow	E	F/SV
Tachycinetta thalassina - violet-green swallow	O	F/M

BIRDS (cont'd.)

	PRESENCE	STATUS
ICTERIDAE - BLACKBIRDS AND ORIOLES		
Agelaius phoeniceus - red-winged blackbird	O	F/R
Euphagus cyanocephalus - Brewer's blackbird	O	C/R
Molothrus ater - brown-headed cowbird		
Sturnella neglecta - western meadowlark	O	C/R
LANIIDAE - SHRIKES		
Lanius ludovicianus - loggerhead shrike	O	U/R
MIMIDAE - MOCKINGBIRDS AND THRASHERS		
Mimus polyglottos - mockingbird	O	C/R
MOTACILLIDAE - PIPITS AND WAGTAILS		
Anthus spinoletta - water pipit	O	F/WV
PARIDAE - TITMICE, VERDIN, AND BUSHTIT		
Psaltriparus minimus - bushtit	O	F/R
PARULIDAE - WOOD WARBLERS		
Dendroica coronata - yellow-rumped warbler	O	C/WV
PHASIANIDAE - QUAIL AND PHEASANTS		
Lophortyx californicus - California quail	O	F/R
PICIDAE - WOODPECKERS		
Colaptes auratus - common flicker	O	F/R
Dendrocopos nuttallii - Nuttall's woodpecker	E	F/R
Melanerpes formicivorus - acorn woodpecker	E	U/R

BIRDS (cont'd.)

	PRESENCE	STATUS
PLOCEIDAE - WEAVER FINCHES		
Passer domesticus - house sparrow	E	F/R
STRIGIDAE - TYPICAL OWLS		
Bubo virginianus - great-horned owl	E	U/R
Otus asio - screech owl	E	U/R
Speotyto cunicularia - burrowing owl	E	U/R
Tyto alba - barn owl	E	U/R
STURNIDAE - STARLINGS		
Sturnus vulgaris - starling	O	C/R
THRAUPIDAE - TANAGERS		
Piranga ludoviciana - western tanager	O	U/M
TROCHILIDAE - HUMMINGBIRDS		
Calypte anna - Anna's hummingbird	O	F/R
TROGLODYTIDAE - WRENS		
Thryomanes bewickii - Bewick's wren	O	F/R
TURDIDAE - THRUSHES, BLUEBIRDS AND SOLITAIRES		
Sialia mexicana - western bluebird	O	U/WV
TYRANNIDAE - FLYCATCHERS		
Contopus sordidulus - western wood pewee	E	F/M
Sayornis nigricans - black phoebe	O	F/R
Sayornis saya - Say's phoebe	O	F/WV

	PRESENCE	STATUS
BIRDS (cont'd.) TYRANNIDAE - FLYCATCHERS (cont'd.)		
Tyrannus verticalis - western kingbird	E	F/SV
Tyrannus vociferans - Cassin's kingbird	E	F/R
TYTONIDAE - BARN OWLS		
Tyto alba - barn owl	E	F/R
MAMMALS		
CANIDAE - FOXES AND COYOTES		
Canis latrans - coyote	C	F/R
Urocyon cinereoargenteus - gray fox	E	U/R
CERVIDAE - DEER		
Odocoileus hemionus - mule deer	O	F/R
CRICETIDAE - RATS AND MICE		
Microtus californicus - California vole	E	U/R
Neotoma fuscipes - dusky-footed woodrat	O	U/R
Peromyscus eremicus - cactus mouse	E	F/R
Peromyscus maniculatus - deer mouse	E	C/R
Reithrodontomys megalotis - western harvest mouse	E	U/R
GEOMYIDAE - POCKET GOPHERS		
Thomomys bottae - Botta pocket gopher	O	C/R
HETEROMYIDAE - KANGAROO RATS AND POCKET MICE		
Dipodomys agilis - pacific kangaroo rat	E	C/R
Perognathus fallax - San Diego pocket mouse	E	F/R

MAMMALS (cont'd.)

	PRESENCE	STATUS
LEPORIDAE - HARES AND RABBITS		
Lepus californicus - black-tailed hare	E	F/R
Sylvilagus audubonii - Audubon cottontail	O	F/R
MURIDAE - OLD WORLD RATS AND MICE		
Mus musculus - house mouse	E	U/R
MUSTELIDAE - WEASELS, BADGERS AND SKUNKS		
Mustela frenata - long-tailed weasel	E	U/R
PHYLLOSTOMATIDAE - PHYLLOSTOMATID BATS		
Macrotus californicus - California leaf-nosed bat	E	U/R
SCIURIDAE - SQUIRRELS		
Spermophilus beecheyi - California ground squirrel	O	C/R
SORICIDAE - SHREWS		
Sorex ornatus - ornate shrew	E	R/V
TALPIDAE - MOLES		
Scapanus latimanus - broad-handed mole	E	F/R
VESPERTILIONIDAE - EVENING BATS		
Several species	E	F/R

Appendix H

ARCHAEOLOGICAL RESEARCH

Evaluation of the Archaeological Resources for the Areawide Facilities Plan for the Las Virgenes Municipal Water District (Malibu Coast, Western Santa Monica Mountains, Southern Simi Hills), Los Angeles and Ventura Counties.

[An Archaeological Record Search]

ABSTRACT

The archaeological resources of the Malibu Coast, Western Santa Monica Mountains, Southern Simi Hills is assessed following careful review of maps and archival information housed at the University of California, Los Angeles, Archaeological Survey. Analysis of the data has indicated this area of the California Coast and adjoining mountains to be one of tremendous archaeological and historical importance.*

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[Report submitted April 7, 1975]

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* THE ARCHAEOLOGICAL INFORMATION CONTAINED HEREIN IS NOT FOR PUBLICATION OR GENERAL PUBLIC VIEW; SITE LOCATIONS MUST REMAIN CONFIDENTIAL.

HISTORICAL BACKGROUND

Three major eras of development are known to have occurred in the study area--the Indian Era, Spanish-Mexican Era, and the Anglo-American Era. Even though these past cultures have left few remnants of their early growth periods, there is evidence in numerous archaeological sites that there is still a great amount of information to be recovered regarding these past cultures.

Indian Era:

The Chumash tribal group is known to have inhabited the greater portion of the study areas (see Figure 1) dating back to over 4,000 years. Mostly considered a water-oriented people, their archaeological remains have been found throughout all environmental zones. They are most recognized for their development and extensive use of large, fast, frameless, multiplanked canoes which enabled the tribe to fish and trade more efficiently than comparable tribal groups. It has been recorded that the Chumash Tribe had successful contact with early Spanish explorers and were among the first tribal groups to be "missionized" by the Spaniards. However, the diseases accompanying early European settlers and the cultural changes brought about by Indian colonization contributed significantly to the reduction and eventual extinction of the Chumash Indian population, leaving little record of tribal habits, settlements, and religious practices.

Spanish-Mexican Era:

This period and the subsequent Anglo-American Era will not be discussed in great length, but it should be mentioned that archaeological resources do not solely indicate prehistoric remains--historical information, such as missions, haciendas, ranches provide valuable data to the archaeologist in helping him to recreate past Indian cultural habits, and help to provide insights into those cultural changes the Indians underwent as the result of that contact with non-aboriginal populations. The Spanish Era began in 1542 when the first known explorers reached the California coast. Later expeditions in the 1760's and 1770's by Gaspar de Portola and Juan Bautista de Anza brought additional contact between the two culture groups. Not until the early 1800's did the Spanish begin to settle in the region. In 1882, when the territory became a holding of Mexico following that government's revolt against Spain, land grants were changed, slight increased inhabitation of the area by non-Indian peoples occurred; but, on the whole the area remained relatively non-utilized except for some seasonal cattle activities and some Chumash Indian settlements.

Anglo-American Era:

Americans from the United States had been arriving in California since 1840, and by 1846, they comprised ten per cent of California's population. The large population influx into the state as the result of the Gold Rush and California Statehood in 1850 began to effect those areas of the coast which were now being inhabited more and more by the Anglos. Mountainous regions were less affected by the population increases, but in recent times, very few areas of California have not felt the brunt of Anglo-American intrusion on the environment.

NON-RENEWABLE RESOURCES

The archaeological, historical, and paleontological resources of this area are considered "non-renewable" resources. In other words, once the resource is damaged or utilized in any way, its use to future generations is lost forever. The educational, scientific, and cultural value of the sites is indeterminable. A special report of the State Archaeological, Historical, and Paleontological Task Force presented to the California State Legislature states:

(1) The outright destruction of California's non-renewable cultural

resources is progressing at an alarming rate. It is estimated that ca. 50% of the original number of archaeological sites have been already lost (i.e., a figure as high as 45,000). An estimated 1400 archaeological sites, 200 historic places, and an undetermined number of Indian cemeteries and paleontological sites are annually obliterated by urban growth, water projects, highway construction, agriculture, vandalism, etc.

(2) The many laws intended to safeguard heritage values are largely ineffective because of public ignorance regarding the worth of heritage remains and minimal efforts on the part of public agencies to enforce these statutes.

The Task Force further enumerated on the benefits of preserving our cultural and historical resources:

(1) As social sciences, archaeology and history provide information that allows man to better understand his own ways. Such understanding is clearly necessary to planning a humane and positive future for the citizens of the state and nation.

(2) Heritage information is useful to other sciences and to industry. It enables scientists to reconstruct past geological, geophysical, and ecological events: for example, the rate of activity along certain geologic faults, the location of oil, and the long-term population trends among commercially important species of fish and shellfish.

(3) Heritage fieldwork provides exciting and educationally profitable leisure-time activity for many Californians. Retired people, school children, people in all walks of life enjoy participation in scientific research when trained specialists and facilities are available for their use.

(4) Heritage activities provide an engrossing medium for education, in

the colleges and secondary schools, in the social sciences, natural sciences and history.

(5) Archaeology is the only device by which modern California Indians may learn of their ancient past. To permit continued devastation of archaeological sites is literally to deprive these citizens of their heritage.

INTRODUCTION

When Spanish explorers first entered America more than 450 years ago, California was settled by an estimated 275,000 Indians. Speaking not fewer than 21 separate languages, the Native Californians were grouped into hundreds of tribelets, each with its own distinctive political organization. Remarkable, too were the elaborate trade networks and diversified subsistence practices by which the Indians adapted themselves to desert, foothill, riverine, lake, mountain and coastal environments. In stark contrast to the traditional sterotype of lethargic "Diggers", it is now known that the California Indians participated in vigorous and complex cultural systems, interacting with one another and with their natural surroundings.

There is solid evidence of Indian activity in California as early as 10,000 years ago, and equivocal clues suggest even earlier dates. Thus, prehistoric California witnessed the development of rich and varied cultures over the span of 100 centuries or more. But since these Indians kept no chronicles, a knowledge of their ancient heritage can be gained only from the detailed study of abandoned villages, ceremonial ravages of time, nature and later men. Archaeology, therefore, is the only source of information regarding over 95% of California's cultural story.

Regional background:

The Chumash tribe (actually a number of politically and geographically distinct groups who are collectively called a tribe because each spoke a dialect of a single language) occupied the pleasant and bountiful coast, its hinterland, and the northern off-shore islands of the Santa Barbara-Ventura region. They were a large population living in permanent villages and subsisting on ocean resources (fish, mollusks, and sea mammals) and land products (deer, acorns, and roots). The popular image of the California Indians as degraded, cultureless, and bestial people, which the Americans of the Gold Rush period created, has long been known to anthropologists as misleading and untrue.

The Chumash appeared to the Spaniards in 1769, when Portola's expedition visited and described them, as superior to the Indians they had seen to the south in Northern Mexico, along the Colorado River, and in the Mohave Desert. Father Crespi wrote that they were "of good figure and disposition, active, industrious and inventive," and Father Font characterized them as "extremely intelligent and skillful, alert and rather bold." The "superiority" of the Chumash in their attitudes and behavior which attracted the notice of the eighteenth-century Spaniards is recognizable also in their tools, implements, and ornaments made of stone, bone, and shell, which the archaeologist of the present day recovers from the deposits of debris which mark their former village sites. In perfection of shape and finish, durable items of prehistoric Chumash material culture are notably the results of craftsmanship and care superior to those which most of the other California Indians were capable of or interested in producing.

The country of the Chumash was very large. It included all of Santa Barbara County, most of Ventura County, and parts of San Luis Obispo, Kern, and Los Angeles counties--in all about 6,500 square miles. (See Figure 1)

The country is largely mountainous, including these coastal ranges: the Santa Ynez, San Rafael, and Sierra Madre mountains and part of the Santa Monica, Caliente, and Temblor ranges. These average about 3,000 feet in elevation, though individual peaks in Ventura County are nearly 9,000 feet. The mountain masses are broken by a few large valleys, and the narrow intermittent coastal shelf between Point Concepcion and Point Mugu.

While the fact remains that the Chumash existed in Ventura and Los Angeles Counties for thousands of years, today it is difficult to get a clear picture of the Chumash. As Kroeber put it (1925:551), "There is no group in the State that once held the importance of the Chumash concerning which we know so little". Our knowledge of these vanished Indians comes from three main sources: the journals and diaries of the Spanish explorers, the record books of the missions, and the mass of artifacts taken from the burial grounds in recent times.

The Chumash transcended many periods of California History: The early Spanish Explorers; the Missionaries; the Rancheros and the Gringos; and in modern times, the Archaeologists and the Pothunters. The Chumash tribe is now extinct. Their culture and heritage, however, lives on in the archaeological resources located in the areas covered by this study.

ASSESSMENT OF ARCHAEOLOGICAL RESOURCES IN STUDY AREA

At the request of Gerald A. Guter, Ph.D., Director of Environmental Studies, Boyle Engineering Corporation, in a letter dated March 10, 1975 (authorization granted March 24, 1975), to C. William Clewlow Jr., Ph. D., Chief Archaeologist, Institute of Archaeology, Archaeological Survey, University of California, Los Angeles, an assessment was made of the archaeological resources for the Areawide Facilities Plan for the Las Virgenes Municipal Water District. Limits of the area under concern were defined by an areawide study map depicting the boundaries for the Las Virgenes Municipal Water District (L.V.M.W.D.), the Triunfo County Sanitation District (T.C.S.D.) and the Malibu Area (M.A.).

As per your instructions, each archaeological site recorded for the above districts has been depicted on its corresponding U. S. G. S. 7.5 Minute Series Topographic Quadrangle. These maps have been mailed to you in a separate package. Due to the time and monetary limitations of this study, it was not feasible to evaluate the archaeological significance of each site. Some of the sites are possibly destroyed today, but there is no way of judging this without an appropriate archaeological field reconnaissance of their location; thus how can you determine archaeological significance when the present status of a site is indeterminable? Next, most archaeologists will agree that every site is capable o producing new added information concerning the particular culture group it may represent; thus for the archaeologist to say one site is more important then another is to open the way for legal struggles, and possibly the eventual destruction of that site, while all the archaeologist can do is sit back and eat his own words.

There is no reason to restate the importance of archaeological resources individually-site by site; thus the best approach to a study of this type is to deal with the area as a whole; this can be done effectively because generally the entire region is represented by only one culture group, and to describe the significance for each of the three districts would be nothing more then repetitio Although the region was occupied by Indians from two distinct linguistic groups, culturally, both the Chumash, and their neighbors to the south, the Gabrieliño, were very much alike. Though their languages were no closer to each other then English is to Chinese, from archaeological evidence of their villages, campsites cemeteries, and ethnographic information, we known that the two groups readily interacted with each other. An example is seen when we find soapstone artifacts in Chumash sites; the material is indigenous to Santa Catalina Island, which was occupied by the Gabrieliño, who quarried the raw material and then traded both th unworked stone and finished products to their mainland neighbors.

Thus an added importance of this area archaeologically, is that the region encompasses the southern limits of the Chumash Tribe and the northern territories of the Gabrieliño group. A study of the archaeological resources in this area, will help to illustrate how aboriginal groups interacted with each other economically and politically. From past studies of their archaeological remains, we known that culture similarities transcend linguistic boundaries.

It has been estimated that only 10% of the area has been actually surveyed by archaeologists, and yet 173 sites have been recorded. We give you the site locations . . . while quoting your letter of March 10, 1975: "We understand that specific site locations are not to be disclosed to the general public." Chart 1 quantifies the number of archaeological sites recorded in the L.V.M.W.D., T.C.S.D. and M.A. for each U.S.G.S. 7.5 minute series topographic quadrangle. Chart 2 then lists by quadrangle and water district the specific coded site numbers of those archaeological remains.

CONCLUSION

The bulk of this report has been to stress the importance of archaeological remains for the study of past Indian cultures, and certainly this area of California is one of the more imporatnt archaeological regions of California. The bulk of the sites illustrate the chronological development of the native indigenous populations from early to late prehistoric horizon periods. These horizons are indicative of gradual changes in the gross artifactual complexes utilized by the Indians. Early horizon sites are characterized by the presence of manos and metates (stone grinding tools), while late horizon sites' artifactual assemblage of stone pounding and grinding tools is characterized by the presence of mortars and pestles. An entire range of and gradation of archaeological sites can be found in the study area: everything from the smallest shell scatter to large habitation sites inhabited by as many as 1000 people. One can find rock shelters, pictograph and petroglyph sites, stone chippage scatters, quarry sites, cemeteries and villages represented in the archaeological record for the region; sites with cultural remains occurring only on the surface, to others whose matrix exceeds six meters in depth. Each of these sites is unique in its occupation, artifact assemblage, structure and temporal placement in the overall archaeological record for the Malibu Coast, Western Santa Monica Mountains, and Southern Simi Hills.

It must be stressed that the sites presented with this study in no way approximate the total potential for archaeological remains which may be present in the area. There are no living descendents of the Chumash or Gabrieliño Indians, therefore, it is through the study of their villages, campsites, etc. that archaeologists can hope to recreate their prehistoric culture systems. We are not advocating that all archaeological sites must be excavated, on the contrary, so few sites remain today, and even fewer which have not been disturbed in some manner (if such a site does exist in California), the archaeological record must be preserved for future generations to study; to stop and think that 50% of the archaeological sites in California have been destroyed in little over one hundred years, the time to protect and preserve is now. The Chumash and Gabrieliños are extinct today, yet they and their ancestors inhabited Southern California for over 300 generations before the first Europeans set foot on the continent.

As a final statement, this record search does not constitute a full archaeological environmental impact report; before any work can proceed in the area, a field reconnaissance must be conducted in the areas of concern, and a final statement written on the possible impact to archaeological resources, and mitigating measures that can be taken to salvage or stabilize any affected archaeological remains.

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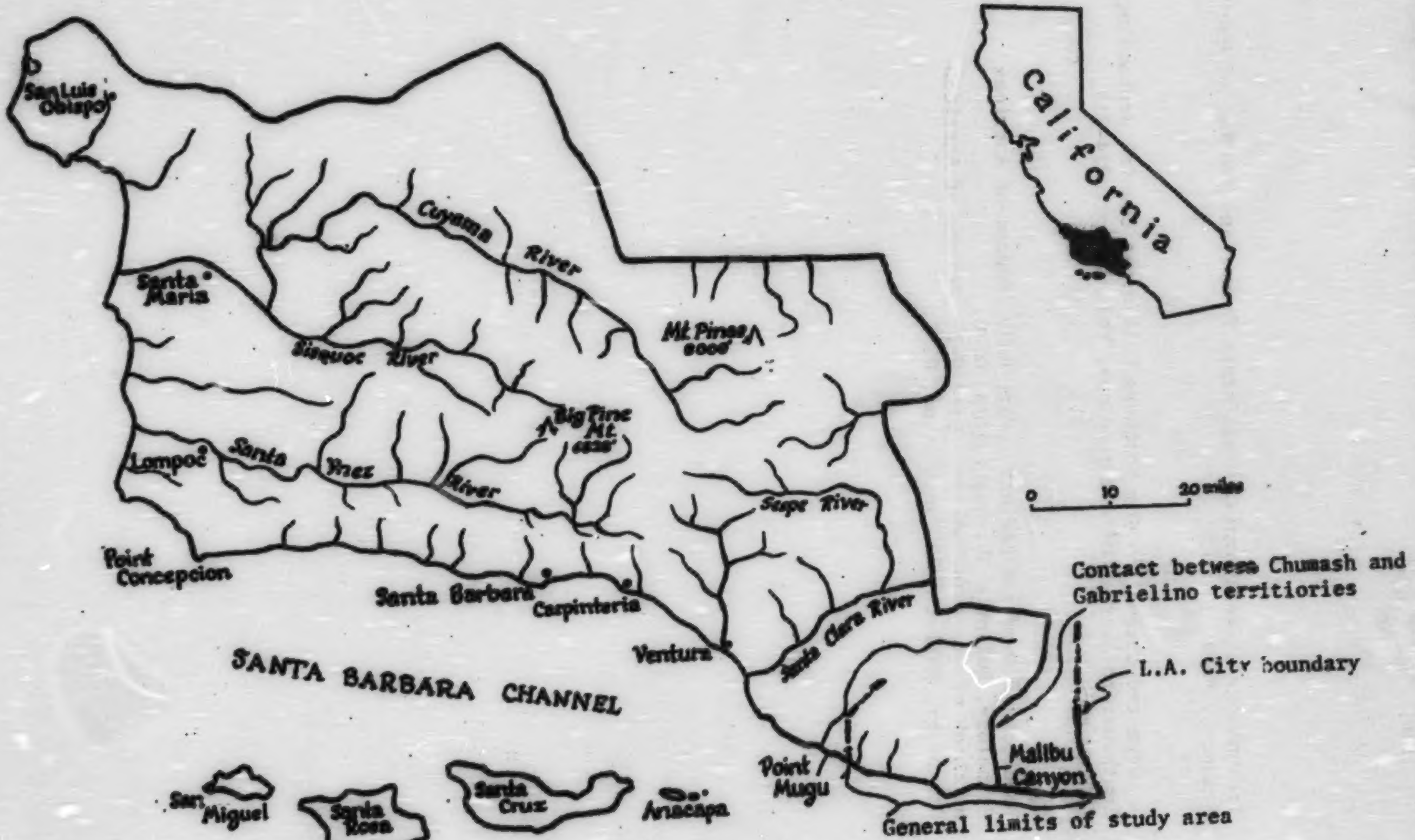

FIGURE 1. The area occupied by the Chumash in southern California. All names on the map are present-day names. (After Kroeber, 1925)

CHART 1: SHOWING QUANTIFICATIONS OF ARCHAEOLOGICAL RESOURCES IN EACH STUDY AREA

U.S.G.S. 7.5 MINUTE SERIES TOPOGRAPHIC QUADRANGLE	M.A.	L.V.M.W.D.	T.C.S.D.	TOTALS
TOPANGA	9	0	0	9
MALIBU BEACH	19	20	0	39
POINT DUME	26	16	0	42
TRIUNFO PASS	11	5	0	16
NEWBURY PARK	0	0	1	1
THOUSAND OAKS	0	13	23	36
CALABASAS	0	23	0	23
CANOGA PARK	0	1	0	1
OAT MOUNTAIN	0	6	0	6
SANTA SUSANA	0	0	0	0
	65	84	24	173

M.A. = MALIBU AREA

L.V.M.W.D. = LAS VIRGENES MUNICIPAL WATER DISTRICT

T.C.S.D. = TRIUNFO COUNTY SANITATION DISTRICT

CHART 2: LISTS BY STUDY AREA THE RECORDED SITE NUMBER FOR EACH ARCHAEOLOGICAL SITE RECORDED IN THE AREA OF ITS U.S.G.S. 7.5 MIN. SERIES QUADRANGLE

TOPANGA QUAD.	M.A.: LAn-133 190 195 215 265 268 450 517 707	L.V.M.W.D.: none	T.C.S.D.: none
MALIBU BEACH	M.A.: LAn-19 31 210 226 255 263 264 266 267 310 311 319 331 387 404 406 479 690 706	L.V.M.W.D.: LAn-37 38 39 44 78 153 154 155 156 161 170 183 187 225 227 229 386 471 505 506	T.C.S.D.: none
TRIUNFO PASS	M.A.: LAn-28 29 49 52 90 92 180 217 269 352 480	L.V.M.W.D.: LAn-48 472 512 514 515	T.C.S.D.: none
NEWBURY PARK	M.A.: none	L.V.M.W.D.: none	T.C.S.D.: VEN-177
SANTA SUSANA	M.A.: none	L.V.M.W.D.: none	T.C.S.D.: none
CANOGA PARK	M.A.: none	L.V.M.W.D.: LAn-246	T.C.S.D.: none

CHART 2: cont.

POINT DUME QUAD.

M.A.: LAn-30
40
114
174
189
196
197
198
199
200
201
205
207
222
292
335
454
478
494
495
496
497
499
500
501
513

L.V.M.W.D.: LAn-15
18
50
51
316
317
350
353
354
403
415
468
469
470
527
528

T.C.S.D.: none

THOUSAND OAKS

M.A.: none

L.V.M.W.D.: LAn-32
41
42
165
186
188
242
243
313
314
320
321
391

T.C.S.D.: VEN-8
12
15
39
40
41
42
43
44
68
122
123
124
125
145
146
176
180
181
267
270
271
294

CHART 2: cont.

CALABASAS QUAD.	M.A.: none	L.V.M.W.D.: LAn-129	T.C.S.D.: none
		228	
		238	
		244	
		250	
		315	
		413	
		416	
		421	
		482	
		485	
		486	
		487	
		488	
		489	
		502	
		503	
		504	
		511	
		647	
		648	
		711	
		712	
OAT MOUNTAIN	M.A.: none	L.V.M.W.D.: LAn-93	T.C.S.D.: none
		357	
		448	
		449	
		640	
		649	

ADDENDUM

Brief description of the archaeological sites located within the Las Virgenes Municipal Water District Areawide Facilities. The information has been obtained solely from the UCLA Archaeological Survey site report files for Los Angeles and Ventura counties. For convenience the following designations will be employed when possible:

P - Petroglyph, or pictograph [site may or may not contain other cultural indicators, this is a special type of site associated with ritual activities]

TC - Temporary Camp [site whose activities are usually associated with a special activity such as the procurement of water, food resources, lithic material, etc., but whose overall artifact assemblage does not indicate that it was occupied for a long period of time]

RS - Rock shelter [sites usually occupied for a long period of time, they were utilized for the shelter they provided from the weather, or because of their proximity to water, food resources, or lithic sources]

CS - Chipping Station [site whose artifact assemblage is composed almost entirely of the waste from chipping activities, usually finished tools are scarce, and faunal remains may or may not be present]

Occ - Occupation Site [sites whose artifact assemblage is represented by a complete range of tool types, usually with midden deposits suggesting long-term occupation; sites of this type may range from small camps occupied by a single family unit, to large villages with populations exceeding 2000 people; the large villages may contain cemeteries, or other intrasite activity areas]

BRM - Bedrock Mortar [these specialized sites, usually associated with the preparation of plant remains, may or may not contain an adjacent occupation deposit]

Q - Quarry [specialized sites associated near lithic outcrops, the stone material being utilized in the manufacture of artifactual tools]

The sites will be described by the above designations, then, the area (in feet or meters) will be given, and the midden depth, if known, will be given. The artifacts usually found in association with each type of site may be obtained in the bibliography-I will not list the individual artifacts recorded in the initial field survey, nor mention data obtained from the excavation of a site.

Ven-8: RS, material scattered over a large area, shallow midden depth.

Ven-12: large RS, 45x20 ft., midden depth approx. 2 ft.

Ven-15: RS, 50x35 ft., midden depth approx. 2 ft.

Ven-39: Occ, shell scatter, 125x75 ft., midden depth unknown, milling stone site.

Ven-40: Occ, lithic scatter, 50x100 ft., " " " " " ".

Ven-41: TC?, lithic scatter, 50x100 ft., " " " " " ".

Ven-42: Occ, 120x100 ft., midden depth unknown, milling stone site.

Ven-43: Occ, 100x50 ft., " " " " " ".

Ven-44: Occ, 100x200 ft., " " " " " ".

Ven-68: RS, 15x15 ft., midden depth unknown.

Ven-122: TC, 200x150 ft., midden depth at least 1 foot.

Ven-123: TC, 250x400 ft., midden depth unknown.

Ven-124: TC, 50x30 ft., shallow midden depth.

Ven-125: TC, 50x75 ft., midden depth unknown.

Ven-145: TC, RS, 4x3 meters, shallow midden depth.

Ven-146: RS, 2x3 meters, shallow midden depth.

Ven-176: TC, RS, 80 sq. ft., midden depth may exceed 6 ft.

Ven-177: TC, RS, 75 sq. ft., midden depth approx. 3 ft.

Ven-180: TC, 40,000 sq. ft., midden depth unknown.

Ven-181: Occ, 1000x700 ft., midden depth unknown.

Ven-267: TC, 20x20 meters, midden depth unknown.

Ven-270: two sites located on adjacent knolls, both TC, 10x20 & 20x30 meters, shallow midden present at both sites.

Ven-271: CS?, 1320x150 ft., midden depth unknown.

Ven-294: TC, 400x150 ft., midden depth approx. 2 ft.

LAn-15: Occ, village, 45x60 ft., midden depth unknown.

LAn-18: CS, 40x50 ft., midden depth unknown.

LAn-19: Occ, 400x80 ft., midden depth 3 ft. plus.

LAn-28: RS, 100x50 ft., shallow midden depth, may have had burials at one time, have been removed.

LAn-29: RS, 200x50 ft., midden depth unknown.

LAn-30: RS, TC, 100x100 ft., midden depth unknown.

LAn-31: RS, TC, 100x100 ft., " " " .

LAn-32: RS, TC, 75x50 ft., " " " , milling stone site.

LAn-37: Occ, 30x75 ft., midden depth at least 1 foot.

LAn-38: TC, 300x300 ft., midden depth unknown.

LAn-39: Occ, 60x75 ft., midden depth approx. 6 ft.

LAn-40: Occ, 125x250 ft., midden depth approx. 2 ft., milling stone site.

LAn-41: Occ, 1000x1500 ft., " " " 3 ft.

LAn-42: CS, Q, 100x300 ft., surface (no midden).

LAn-44: Occ, village, full extent of area unknown, midden depth 3 ft.

LAn-47: Occ, village, 300x300 ft., midden depth at least 2 ft.

LAn-50: P, Occ, two RS-10x6 ft. & 10x7 ft., max. midden depth 2 ft. in each.

LAn-51: RS, 13x13 ft., midden depth unknown.

LAn-52: Occ, large village, 750x1500 ft., midden depth exceeds 10 ft., village complex excavated many times-producing burials, rock features, full range of late prehistoric artifacts.

LAn-78: RS, 30x20 ft., midden depth unknown.

LAn-90: Occ, 30x50 ft., midden depth unknown, badly destroyed by nearby park development, once larger village.

LAn-92: CS, 150x25 ft., midden depth 1 ft.

LAn-93: two RS, 6x12 ft. & 6x6 ft., midden depth less then 1/2 ft. in each.

LAn-114: Occ, 400x200 ft., midden depth approx. 4 ft., burials have been reported for the site, excavated once before.

LAn-129: RS, 100x50 ft., midden depth unknown.

LAn-133: Occ, exact area not determined, midden depth may exceed 4 ft., one burial has been reported.

LAn-153: Occ, 150x100 ft., shallow midden depth.

LAn-154: Occ, BRM, 150x175 ft., midden depth at least 18 inches.

LAn-155: Occ, 200x200 ft., midden depth unknown.

LAn-156: TC, 50x50 ft., midden depth unknown.

LAn-161: Occ, BRM's, extent of area not determined, midden depth unknown.

LAn-165: Cave, 18x50 ft, midden depth unknown.

LAn-170: Occ, area not determined, midden depth unknown.

LAn-174: Occ, large village, 12,500 sq. ft., midden depth exceeds 4 ft., fire hearths, rock features, burials have been recovered from previous excavation.

LAn-180: Occ, area not determined, midden depth approx. 2 ft.

LAn-183: TC, 600x225 ft., surface.

LAn-186: Occ, 85x50 ft., midden depth 30 inches, one burial-placed in a sandstone bowl-was recovered in 1957.

LAn-187: RS, 25x25 ft., midden depth unknown.

LAn-188: RS, P, 25x15 ft., midden depth unknown.

LAn-189: Occ, 600x300 ft., midden depth unknown.

LAn-190: Occ, area not determined, shallow midden depth, one burial recovered.

LAn-195: Burial, extent of area or midden depth not determined, burial potted out by the Sheriff's office, remains given to UCLA for study.

LAn-196: TC, 50x25 ft., shallow midden depth.

LAn-198: ?, site report does not mention extent of area, or possible midden depth, nor does it mention artifacts found, may be TC site.

LAn-199: TC, small area, shallow midden depth (approx. 2 ft.).

LAn-200: TC, area not defined, midden depth unknown.

LAn-201: Occ, 1/2 acre, shallow midden depth.

LAn-205: Occ, large village, 40 acres, midden depth at least 6 ft..

LAn-207: Occ, village, 1 acre, deep midden deposit, 1 burial recovered.

LAn-210: Occ, area not determined, midden depth unknown, site has been buried under 10 feet of highway fill.

LAn-215: TC, 300x900 ft., shallow midden deposit.

LAn-217: Occ, 2.5 acres, 2-3 ft. midden depth, village.

LAn-222: Occ, 100x300 ft., midden depth 2 ft. plus, several burials recovered from site in 1962, village.

LAn-225: Occ, 200x400 ft., midden depth unknown.

LAn-226: Fossil shell site, 34x50 ft., depth unknown.

LAn-227: Occ, village, 600x220 ft., midden exceeds 2 ft. in depth.

LAn-228: TC, 50x50 ft., midden depth unknown.

LAn-229: Occ, 100x150 ft., midden depth approx. 2-3 ft.

LAn-238: RS, 10x40 ft., midden depth unknown.

LAn-242: Occ, 200x400 ft., midden depth approx. 4 ft., village, one burial recovered from site (cremation in a stone bowl).

LAn-243: TC, 300x100 ft., midden depth unknown, burials recovered, reported as a TC, but site represents an Indian cemetery.

LAn-244: RS, BRM, TC, 40x20 ft., midden depth exceeds 12 inches.

LAn-246: Occ, village, 900x300 ft., midden depth approx. 5 ft., one burial recovered, others have been reported.

LAn-250: TC, 300x300 ft., midden dpeth 3 ft.

LAn-255: Cemetery, area or depth of midden not reported, 6 burials have been recovered from the site.

LAn-264: Occ, large Chumash village, many components, prehistoric and historic cemeteries, midden depth exceeds 16 ft. in some areas, site has been excavated many times by UCLA, and currently the Anthro. Dept. of UCLA conducts a field training class in archaeology there every year. Southern-most Chumash village.

LAn-265: CS, area not defined, midden depth unknown.

LAn-266: TC, 210x120 ft., midden depth unknown.

LAn-267: Occ, 2500x1000 ft., midden depth at least 2 ft.

LAn-268: CS, 100x50 ft., surface.

LAn-269: ?, buried site, extent of area not determinable, midden depth approx. 2 ft.

LAn-292: Occ, 100x400 ft., midden depth unknown.

LAn-310: Occ, 38x15 meters, midden depth 60cm.

LAn-311: Occ, area not defined, midden depth 3-4 ft.

LAn-313: RS, 15x10 ft., midden depth unknown.

LAn-314: TC, area not defined, midden depth unknown.

LAn-315: TC, 150x50 ft., midden depth unknown.

LAn-316: RS, BRM, 10x5 ft., midden depth unknown.

LAn-317: BRM, size-15x10 ft. containing seven BRM's.

LAn-319: RS, TC, 30x25 ft., midden depth approx. 1 ft. plus.

LAn-320: TC, 150x50 ft., midden depth unknown.

LAn-321: TC, 50x50 ft., midden depth unknown.

LAn-331: RS, Occ, area not defined, midden depth approx. 2-3 ft.

LAn-335: TC, approx. 1 acre, midden depth unknown.

LAn-350: TC?, area not defined, midden may be 12 inches deep, collection of milling

LAn-352: Occ, 250x250 ft., midden depth approx. 4 ft., village, many burials have been found in association with the site.

LAn-353: BRM's, approx. eight, area not defined, nearby RS with a pictograph located 1/4 mile from site.

LAn-354: RS, P, 12x8 ft., midden depth unknown, association to LAn-353 postulated.

LAn-357: Occ, village, 1000x600 ft., BRM's present on site, one burial has been recovered from the site.

LAn-386: RS, Occ, 6x2 meters, midden depth 50-70cm, basketry has been found in the shelter.

LAn-387: Occ, covers several acres, appears to be an historic period occupation, midden depth unknown, old stone house foundations (ca. 1860) on site.

LAn-391: Occ?, 200x300 ft., midden depth unknown.

LAn-403: Occ, BRM, RS, P, all found in general vicinity of the site, area covering at least one acre, ceremonial area, historic contact with Spanish shown by some of the names carved in the shelter.

LAn-404: TC, 100x50 ft., midden depth approx. 12-24 inches, rock cluster feature on the site.

LAn-406: CS, 200 sq. ft., midden depth unknown.

LAn-413: TC, 225x45 ft., midden depth unknown.

LAn-415: TC, 20x40 meters, midden depth unknown.

LAn-416: TC, 180x110 ft., midden depth approx. 2.5 ft.

LAn-421: CS, 40x50 ft., surface.

LAn-448: RS, TC, P, 110x100 ft., midden depth approx. 2-3 ft.

LAn-449: Occ, 2640x900 ft., midden depth unknown, many RS's in general area.

LAn-450: TC, 250x100 ft., midden depth approx. 1 ft.

LAn-454: TC, area not defined, midden depth unknown.

LAn-468: TC, 30x15 meters, shallow midden depth.

LAn-469: Occ, 70x40 meters, some midden depth present.

LAn-470: RS, TC, 3x3 meters, midden depth less then 10cm.

LAn-471: CS, 20x30 meters, surface.

LAn-472: RS, TC, 10x16 meters, shallow midden deposit.

LAn-478: TC, 40x20 meters, midden depth at least 18 inches.

LAn-479: CS, 70x100 meters, midden depth unknown, may also be TC.

LAn-480: TC, 40x30 meters, shallow midden depth.

LAn-482: CS, 50x50 meters, midden depth unknown.

LAn-485: RS, CS, 6x20 ft., midden depth unknown.

LAn-486: CS, 50x39 ft., midden depth unknown.

LAn-487: TC, 1800 sq. ft., midden depth unknown.

LAn-488, CS, 600 sq. ft., surface.

LAn-489: CS, 100 sq. ft., " .

LAn-494: TC, 100x200 ft., shallow midden depth.

LAn-495: CS or TC, 100x200 ft., shallow midden depth.

LAn-496: " , 100x50 ft., " " " .

LAn-497: TC, 75x35 ft., shallow midden depth.

LAn-499: TC, 100x30 ft., shallow midden depth.

LAn-500: TC, 100x30 ft., " " " .

LAn-501: TC, 15x40 ft., surface.

LAn-502: CS, 40 sq. ft., midden depth unknown.

LAn-503: CS, 160 sq. ft., " " " .

LAn-504: CS, 80 sq. ft., " " " .

LAn-505: RS, 30x20x7 ft., midden depth approx. 3 ft., shelter contained much perishable material (basketry).

LAn-506: BRM's, over an area 50x50 ft., no associated midden.

LAn-511: ?, historic period Indian site, 5x5 meters, midden depth unknown, site has been badly potted, but contained numerous European trade goods as well as large amount of aboriginal material.

LAn-512: CS, 200x250 ft., possible shallow midden depth.

LAn-513: CS or TC, 75x200 meters, surface.

LAn-514: Occ or TC, 45x30 meters, midden depth approx. 50cm.

LAn-515: TC, 10x15 meters, midden depth unknown.

LAn-517: TC?, 15x50 ft., shallow midden deposit.

LAn-640: RS, area or midden depth not determined.

LAn-647: Occ?, foundation remains from historic period structure (ca. 1870).

LAn-648: Occ?, " " " two historic period buildings, ca. 1870-1900.

LAn-649: CS, area size or possibility of midden depth not determined.

LAn-706: TC, 20x20 ft., midden depth approx. 6 inches.

LAn-707: TC, 50x150 ft., midden depth of 6-12 inches.

LAn-711: TC or CS, 100x50 ft., midden depth unknown.

LAn-712: TC or CS, 300x100 ft., " " " .

ADDENDUM CONTINUED

SIGNIFICANCE OF STUDY AREA

[National Register Sites: Many archaeological remains within the study area are of National Registar quality, including- LAn-44, LAn-52, LAn-90, LAn-92, LAn-114, LAn-198, LAn-205, LAn-207, LAn-225, LAn-227, LAn-229, LAn-264, LAn-335, LAn-352, and LAn-454. And many more sites are worthy of inclusion to the National Register list.]

Coastal Southern California has been occupied by Man for at least the last fifteen to twenty thousand years. Evidence for early peoples is scant; however, by seven to eight thousand years ago relatively permanent settlements are founded. The economy of these people is tied to food collection and preparation. Plant resources represent a major portion of their diet, little hunting and fishing was present. Over time, populations came to utilize greater and greater portions of their environment. The intensity of plant food collection increased, as did the variety of plants being utilized. Fishing and the hunting of large land and sea mammals also increased. By the time of Spanish contact during the 16th, 17th, and 18th centuries, coastal populations had developed a highly complex economy and society. Throughout this span of time the Indians were hunters and gatherers; despite contacts with agricultural groups of the southwest, coastal Southern Californian populations did not practice agriculture until the Spanish period of the 18th century.

This general trend of cultural development occurred throughout coastal Southern California; however, the timing and rate of these changes varies greatly from one geographic range to another. The diverse environments and wide range of available food resources, coupled with marked differences in the rates of cultural development, and the social complexity attained by these aboriginal peoples, provides an important area of study for anthropologists and archaeologists. Coastal Southern California presents one of the best areas in the world to study the development of complex hunting and gathering societies.

The Santa Monica Mountains, particularly, the western portion of this range, is a very important archaeological region. These mountains are isolated by the Ventura-Oxnard Plain on the west, and the Los Angeles Basin on the east, and represent a distinct natural and cultural feature of the south coast. More important, they fall at the northern extreme of the topographic and cultural break that existed along the coast; we know that, historically, the Santa Monica Mountains were the dividing line between two major populations: the Chumash and the Gabrieliño. Despite the large number of archaeological sites that have been completely or partially destroyed within the study area, the Santa Monica Mountains exhibit a more complete assemblage of archaeological material for all time periods than any other region of the California coast.

Relative to other regions, the Santa Monica Mountains is well known archaeologically. A wide range of sites have been excavated and a variety of environments have been surveyed. While the area is far from being completely surveyed (at most 10% has been systematically surveyed by archaeologists), nevertheless a wide representation of archaeological resources have been recorded for the Santa Monica Mountains area. Archaeological excavations have been conducted for some fifty years, and in that time a relatively representative sample of sites has been investigated and reported. The amount of the field work and the presence of a long range research program for the Santa Monica Mountains increases the research importance and potential of this area. A large body of information has accumulated; therefore, future researchers are likely to work in the Santa Monica region, even if a comparable field situation exists elsewhere.

Finally, unique aspects: The Santa Monica Mountains seem to represent a major distribution center for goods from the Southern Channel Islands to the Ventura-Oxnard Plain, and to the California interior. The study area encompasses the ethnographic boundary between two cultural groups. The Santa Monica Mountains provide an ideal location to study the development of hunter-gatherer populations over long periods of time. The Chumash Indians adaptation to a maritime way-of-life is unique to Californian aboriginal groups [as accounted earlier, their development of the ocean-going plank canoe, the utilization of large schooling fishes and sea mammals, the complex trade systems, the elaborate socio-political and religious institutions of their culture, and the beautiful/aesthetic artifacts they manufactured], and through the study of their archaeological remains we can reconstruct their past behavioral patterns; and through the preservation of their archaeological remains future generations may also be able to study the heritage of cultures foreign to their own. The descendents of these Indian cultures are extinct today; therefore, archaeology will provide the means through which the above studies may be conducted.

AN ARCHAEOLOGICAL EVALUATION OF THE PROPOSED CALABASAS PARK WATER LINE

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Attention: Jared Ikeda

April 1977

487<

TABLE OF CONTENTS

Page

INTRODUCTION
- Project 1
- Culture History 1
- Cultural Resources 3

METHODOLOGY
- Archival Investigation 3
- Field Investigation 4

DATA
- Site 1 4
- Sites in the Project Vicinity 7
- Evaluation of the Site's Importance 8

IMPACTS
- Direct Impacts Upon Cultural Resources 8
- Preservation and Mitigation Alternatives 8

SUMMARY 9

BIBLIOGRAPHY 10

MAPS
- Map 1 - Project Location
- Map 2 - Site Map
- Map 3 - Sites in Project Vicinity

APPENDICES
- Appendix I - Historical Development
- Appendix II - Table of Cultural Remains
- Appendix III - Site Record
- Appendix IV - Consultants Qualifications

INTRODUCTION

Project: The project consists of the construction of approximately three miles of 12 to 14 inch water line and construction of a small reservoir. The line will connect the Las Virgenes Municipal Water District Plant Site with the upper reaches of the golf course complex in McCoy Canyon (Map 1). The right-of-way and easement for the water line will be 20 feet wide. The line will be located in existing roadways or proposed road development associated with Calabasas Park Planned Community whenever possible. Construction of the water line and reservoir is a type 2 project (Clean Water Grant Bulletin No. 34, 1976). Under this type of development only the primary impacts of construction need be evaluated.

The project area is hilly terrain between Las Virgenes Canyon and the western flanks of the San Fernando Valley. The majority of the project area is drained by McCoy Canyon, this watershed flows to the east into the Valley. The area is a mosaic of the major plant associations found along the northern slopes of the Santa Monica Mountains. Of particular importance to aboriginal populations were the coastal sage (supporting hard seed producing grasses and shrubs, bulbs, and greens) and oak woodland (dominated by oaks which yielded acorns). A variety of small and large mammals are resident to this region.

Major population centers existed in Las Virgenes Canyon and the western portion of the San Fernando Valley. The project vicinity has been utilized by aboriginal and European populations on a seasonal or temporary basis for primary collection and processing of foods and raw materials.

Culture History: There is scattered evidence to suggest that Man has occupied the New World in excess of 30,000 years. Dated habitation of the Santa Monica Mountains is relatively recent, approximately 8,000 years ago. By eight to ten thousand years before the present relatively sedentary populations had settled the flanks of the San Fernando Valley and the coastal terrace of the Santa Monica Mountains. Villages may have also been present in larger canyons and interior valley systems of the Santa Monica Mountains. The economy of these populations was oriented towards collecting. Vegetal foods made up the bulk of the diet. The population of a village was relatively small; the territory utilized by a village population was extensive. There is little evidence for regular interregional interaction.

Over time populations grew, village size and number increased. Associated with this trend was increased use of resources. Economically important plant and animal resources were utilized more intensively, new food resources were added. Exchange networks between local populations and between major geographic regions were developed, these supported and encouraged the growth of economic and social institutions.

Proto-historic populations represented a complex hunting and gathering society. Populations were based in a village; in the interior of the Santa Monica Mountains and the San Fernando Valley these villages were located about a reliable source of water in a transition zone between mountainous terrain and valley floor. A portion or all of this population would seasonally move to camps to take advantage of localized resource abundance. A number of campsites were occupied by small groups to exploit a localized resource or during periods of general stress.

Historically the San Fernando Valley was occupied by Gabrielino speaking peoples; the border between Chumash and Gabrielino was the western limits of the Valley. A village was located in the Calabasas region. Villages along this border were bilingual; the social and political ties of a village fluctuated. At times populations in the Calabasas region may have been part of a political unit whose center was on the coast at Malibu; at other times villages in the western San Fernando Valley may have formed a distinct unit.

The aboriginal economy was permanently disrupted during the latter part of the 18th century A.D. The Spanish mission system and later development of ranchos quickly redistributed aboriginal populations and encouraged populations to participate in a European culture. Land use of the project vicinity during historic times was limited to grazing. The movie industry located motion picture production in this area during the 20th century. Currently residential and agricultural development are encroaching on this region.

A number of sources pertaining to aboriginal cultural development exist: general southern California (Wallace 1955 and Warren 1968), the Santa Monica Mountains (Leonard 1971), and Calabasas and Woodland Hills (Galdikas-Brindamour 1970). A summary by Gerald Gates of local historical development is appended (Appendix I).

Cultural Resources: Evidence for prehistoric and historic use is confined to archaeological and historical resources. For the most part reconstruction of past lifestyles is derived from archaeological sites - locations that represent systematic, patterned use by Man - historic aboriginal and European or Asian research may be augmented by written records. Modifications of the natural environment brought about by Man define the location and extent of archaeological sites. Sites are locations exhibiting significant concentrations or the presence of one or more of the following categories of cultural remains: food waste, waste from the production and maintenance of artifacts and facilities, artifacts and facilities, modifications or natural rock surfaces, alignments or concentrations of stones, accumulations or discoloration of soil, or the presence of human skeletal remains. The scope of this investigation includes prehistoric and historic remains.

The types of archaeological resources that may be present in the study area are temporary campsites. Aboriginal remains may reflect the use of hard seed resources (the presence of manos and metates, and hammerstones), collection and processing of acorns (mortars and pestles), or hunting and butchering of large and small mammals (projectiles, knives, manufacturing waster, hammerstones, and faunal remains). These remains may occur singly or concentrated, depending on the type and frequency of use. Historic remains would probably be limited to structures or trash associated with grazing; and more recent use by motion picture companies.

METHODOLOGY

Archival Investigation: The National Register of Historical Places and the California Inventory of Historic Resources were reviewed. A map prepared by the Archaeological Survey, UCLA, illustrating the location of archaeological sites within the Las Virgenes Muncipal Water District was also consulted - this map was prepared in 1976. No historic or prehistoric sites had been recorded within the project right-of-way or easement.

Prior to 1976 no systematic archaeological reconnaissance had been conducted in the project vicinity. UCLA crews had recorded sites in this general area over the last 15 years; more recently California State University, Northridge, and Pierce College have inventoried sites in the western San

Fernando Valley. In 1976 two environmental assessments were conducted in upper McCoy Canyon: Tentative Map 31164 (DeGarmo) and Calabasas Park (Singer). The DeGarmo study is to the north and east of this proposed project; the Singer study included the reservoir site and all but the western and eastern extremes of the water line. Both studies located archaeological sites, none will be directly affected by the proposed water line and reservoir development.

Field Investigation: The project site was visited on two occasions during March of 1977. The total extent of the water line and the reservoir were covered on foot in the company of a number of special consultants, and representatives of Boyle Engineering, Las Virgenes Municipal Water District, EDAW, and the State Water Resources Control Board. A second visit was paid to investigate an archaeological site identified during the first field session. The site may be directly affected by the proposed development; thus additional descriptive data were necessary to assess possible adverse impacts and the eligibility of this site for listing on the National Register.

As mentioned previously the entire project area, right-of-way and easement of the water line and area of the reservoir, were investigated in a systematic manner on foot. Sufficient time was spent at the archaeological site location to describe the surface complexity of the deposit and provide a representation of the types of activities and possible dates of occupation. Observations were made under good conditions; the author was forewarned regarding the possible confusion of movie sets for earlier historic sites.

DATA

Site 1: This site consists of two midden areas, one in a saddle and the second downslope to the south (Map 2). The midden area in the saddle (northern component) is bisected by a dirt access road. Few surface remains exist, the majority of remains observed were located in the western bank of the road cut. The midden area measures approximately 50 meters (north/south) by 30 meters (east/west). The north/south extent is a relatively accurate estimate, due to the road cut exposure. The east/west estimation is based on land form, the north/south extent, and the location of concentrations of material in the north/south profile. There is a soil color change associated with cultural remains, a change from light brown adobe to light gray-brown adobe soil. This change is most noticeable at the southern margin of the site. Material was concentrated in the relatively flat, low point in the saddle; the greatest depth of deposit (70 to 80 centimeters) was also observed at this point.

The cultural remains from the northern component are exemplified by the material quantified from the western bank of the road cut (Appendix II). Flakes and highly fragmented bone were the most frequent remains. The majority of the flakes were small, associated with production of small tools or the maintenance of such tools. Other items observed were a core, a bone awl, a knife, and two flake scrapers. A number of items of European manufacture and probably of very recent origin were also observed. The mid-section of a small projectile point and a hammerstone were observed on the surface (not associated with the systematic road cut investigation). Fire-affected rock was present, though no attempt was made to quantify it. No tools of ground stone were noted; no marine shellfish remains were observed.

The cultural assemblage suggests hunting activity. This component may be a fall camp at which populations collected and stored acorns; hunting activity would be associated with this type of use. The depth of deposit and alteration of soil color suggests a regular use of this area over some period of time. The small projectile point and the quantity of fused shale suggests that the occupation dates within the last 1,500 years.

This component has been impacted by construction and maintenance of the dirt access road, an area nine to ten meters wide has been disturbed, within this a right-of-way six meters wide has been scraped to sterile soil. The total area of this component has been cleared of brush; two older dirt roads occur upslope to the west of the site area. A fence, gate at the low point in the saddle, has been built across the site. Dispite these modifications much of the site remains intact.

The southern component is located approximately 50 meters south of the limits of the northern component. This component is located over gently sloping terrain adjacent to a heavily wooded arroyo. The western margin of the site is defined by a dirt access road, the southern and eastern margins by the arroyo. Surface remains are present in quantity, the areal extent of remains may be more accurately described than that for the nothern component. Remains were found over an area measuring 50 meters (north/south) by 50 meters (east/west). Aboriginal remains (stone manufacturing waste, stone tools, food remains) were found over the total site area; material tended to concentrate in the southwestern half of the site. Historic architectural remains and trash dumps were located in the northeastern half of the site area (Map 2). Depth of deposit may range to 50-70 centimeters.

The range and frequency of aboriginal remains was similar to the northern component; one additional category of remains was present - marine shellfish remains. Several pieces of mussel shell (_Mytilus_ _sps_.?) were present on the surface. There was a noticeable soil color change associated with increased frequency of aboriginal remains - the soil took on a gray color in areas of high artifact density.

Historic remains consisted of an area which exhibited cedar or redwood planks, square nails, round-headed nail (only one observed), wire, siltstone boulders, small fragments of glass, and charcoal. This area appears to be the site of a structure. The majority of these remains are exposed in a shallow run-off channel (5-10 centimeters deep). Historic debris is scattered over the eastern half of the site; however, there is an additional concentration at the northeastern extreme of this component. Fragments of glass, porcelain and metal are concentrated on the steep slope leading down to the arroyo bottom. This area appears to be a dump site. Other historic artifacts may be found in the arroyo bottom at the base of the slope on the opposite bank. These objects may be associated with the motion picture industry or recent ranching.

Aboriginal occupation of the southern component appears to be similar to that of the northern component - activities associated with hunting, butchering, and consumption of large and small mammals. The mid-section of a small projectile was also found on this component; this artifact and the amounts of fused shale chipping waste would place occupation within the last 1,500 years. The presence of marine shellfish remains may indicate that this component includes later occupation, use of the site at additional times of the year, or changing social and political alliances of the site's occupants. Historic remains suggest the presence of a relatively small structure and a trash dump. The date of occupation is probably the latter part of the 19th century and early 20th century. All but one of the nails observed (some 25 to 30) were square, glass fragments suggest early 20th century use. It is possible that the structure was built as a line cabin during the 1880's or 1890's and occupied until the 1920's. If the structure was standing it may have been used by the movie industry.

Sites in the Project Vicinity: Singer and DeGarmo have located a number of sites in the project vicinity. DeGarmo (1976) located an extensive raw material source which was utilized by aboriginal populations. Quarry activity associated with an exposure of cobbles was represented by anvils, broken cobbles, and primary and secondary flakes. This site is situated on slopes to the north of McCoy Canyon Creek, at a point where the Canyon opens into rolling hills. Singer (1976) located two limited sites near the proposed water line route in the central portion of the project area (Map 3). One site, LAn-866, consists of two manos and a metate; the other site, LAn-867, consists of several chert flakes, a flake scraper, and two projectile points. These remains are probably contemporary with the aboriginal occupation of the site located during the present investigation. Singer also relocated and described LAn-219, which is situated on a high knoll at the margin of the valley drained by Las Virgenes (Malibu) Creek. This site and the newly recorded activity area to the north represent a major campsite.

The bulk of the project area, the hilly and mountainous terrain, fell within the territory or territories of aboriginal populations based in the Las Virgenes drainage and/or peoples based in the southwestern portion of the San Fernando Valley. Isolated tools or locations exhibiting two or three tools probably represent daily use of the area by populations based outside the project area. The quarry site located by DeGarmo represents a temporary use of the project vicinity by populations traveling to this source for the express purpose of obtaining raw materials or by peoples combining search for food resources with acquisition of raw materials. Sites such as the one located during this investigation represent seasonal movement into the project area and occupation at least during the late summer and fall. Due to the dispersed nature of hard seeds and bulbs (use evidenced by manos and metates), these resources may have been collected on a daily basis by populations based several miles from the collecting zone. Acorns are a highly concentrated resource; a short-term intensive occupation (local habitation site) would best utilize this resource. Acorns could be collected in quantity and stored in granaries at collecting camps; these stores could be later tapped by peoples wintering in villages outside the project area. The historic remains located during this investigation are the only recorded historic features for the project area, excepting movie sets.

Evaluation of the Site's Importance: Components of Site 1 represent prehistoric aboriginal and historic European(?) use of the project area. These two middens represent the late summer and fall use of this region by aboriginal populations probably based in the southwestern San Fernando Valley. The depth of deposit, soil color alteration, and quantity and variety of cultural remains suggest a multi-use occupation spanning several hundreds of years. Occupation is probably limited to the last 1,500 years; however, this span of time represents a period of rapid growth and change. These middens represent an important source of information regarding aboriginal population growth, resource utilization, and social and economic exchange. The historic remains appear to represent a line cabin associated with grazing, no other historic buildings of this period have been noted for this general vicinity.

In summary this site would appear to be eligible for listing on the National Register of Historic Places under the criterion that it has the potential to yield valuable information for the reconstruction of prehistoric and historic cultural development. No additional field work is necessary to further identify the values of this site in this environmental impact review process.

IMPACTS

Direct Impacts Upon Cultural Resources: The archaeological site is located along the proposed route of the water line. Excavation for burial of the line would be limited, but would cause disturbance to a deposit. Movement of the trenching machine and support vehicles and personnel may adversely affect the cultural remains. Currently the proposed route falls in the existing dirt access road roadway. This roadway bisects the northern component and borders the southern; the line will be directly adjacent to the cultural deposit for a length of approximately 100 meters.

Preservation and Mitigation Alternatives: Significant adverse impacts may be avoided if the water line is located in the existing dirt roadway (present plans). The existing dirt road cuts through the midden deposit in the northern component and skirts the margin of the southern component. If the water line is relocated to approximate the right-of-way of a proposed road, associated with Calabasas Park Planned Community, the line should be located outside (upslope) the areas illustrated as sensitive on Map 2. If this is not possible the line should be laid on the surface. The site will not be significantly affected if either of the above routings or methods of construction are undertaken.

If the line were to be excavated through either deposit, an archaeological excavation sample from the area to be directly affected would have to be recovered prior to construction. Such a program would adequately mitigate adverse impacts related to construction.

Due to the urgency of construction and the value of the archaeological resource involved, the most acceptable option would be one of avoidance. If the line is placed in the existing roadway or moved to the west of the archaeological deposits, care should be exercised to avoid construction-related activity on the deposit areas. The sensitive areas should be marked and avoided during construction.

SUMMARY

An important archaeological resource was identified along the route of the proposed Calabasas Park Reclaimed Water Line. This site represents prehistoric and historic use of the project area. Sufficient information was observed to suggest that the site would be eligible for listing on the National Register. Several construction plans are available that would avoid direct impacts to the site area; if one of these plans is adopted the proposed project will have no significant adverse affect upon cultural resources.

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APPENDIX I

A BRIEF HISTORICAL SKETCH OF THE LAS VIRGENES AND CALABASAS AREA

by

Gerald R. Gates

Throughout California, there are three major historic periods. Beginning with the period of intensive Spanish exploration and colonization (1769 to 1821 A.D.), through the Mexican period (1821 to 1847), and finally the Anglo or American period (1847 to present). Don Gaspar de Portola with Friar Juan Crespi, led an expedition which passed through the Calabasas area in 1769 returning to San Diego from the San Francisco Bay area. Juan Bautista de Anza followed a similar route in 1774 and again in 1776 passing through the Calabasas area. With the founding of the Franciscan missions and Spanish presidios and pueblos movement through the general area increased. A branch of the famous El Camino Real left the San Fernando Valley via Calabasas to Las Virgenes and then on to the Mission San Bueanaventura. This thoroughfare used by soldier, priest and civilian is today followed by the Ventura Freeway.

Although popularly referred to as "Spanish" ranchos, land grants were only made during the Mexican period. Under Spanish rule only some 25 concessions were made which permitted settlement and use of a specific tract of land, but actual title remained with the Crown. These concessions were actually no more than grazing permits. One such concession, El Paraje de Las Virgenes was granted in the general area. This concession later became a Mexican land grant for Rancho de Las Virgenes. During this period the primary land use pattern consisted of virtually unrestricted grazing of cattle and horses and some agriculture, all activities mainly attended to by Indian labor. The San Fernando Mission received a great tract of land including most of the San Fernando Valley and extending into the Calabasas area. To the south and east of the general project area lies the Rancho San Vincente y Santa Monica.

An adobe was built in the Calabasas area, possibly as early as the 1840's, which later became the home of Miguel Leonis, owner of the El Escorpion Rancho on the periphery of the vast Rancho Ex-Mission de San Fernando. Leonis was involved in the beginning of a 20 year-long range war between cattlemen, sheepherders, and squatters who claimed portions of the former Mexican land grants. In the hills surrounding Calabasas, in the Santa Monicas and the Simis, were line shacks for herders and vaqeros and hideouts for squatters and the various factions which fought over control of this general region. By 1878, the herds of sheep owned by Leonis reached 30,000 head. In 1889, the old Basque died. Eventually, the El Escorpion and Las Virgenes ranchos passed into American hands.

During the latter part of the American period grazing and agricultural pursuits continued. A stage and wagon road continued in use through Calabasas which became a major thoroughfare after 1895 when the Conejo Grade was suitably cut. The town of Calabasas grew at the southwestern entrance to the San Fernando Valley, but at a slower pace. Eventually, during the early 20th century the great landholdings dwindled as more people moved into the area and limited subdivision began. It is said that during the Prohibition era bootleggers operated stills in the canyons of the surrounding hills, possibly utilizing shacks that only decades before witnessed range war gunfights. Hollywood eventually moved into the area utilizing the picturesque landscape for westerns and other movies. Today the Century Ranch is still utilized for this purpose. Modern urbanization is encroaching upon these hills and canyons from the Valley floor. Just as the main portion of the San Fernando Valley has passed through the stages of rural, farm-village, small town, suburban, new-suburban, urban fringe, city, and metropolitan, the peripherial areas are also passing through these stages, though at a reduced pace. Thus, this area has gone through many land use changes, from a subsistence base for an aboriginal population, to grazing and agriculture to modern urbanization in a space of just over 200 years of recorded history.

APPENDIX II

SYSTEMATIC SURFACE OBSERVATION OF WESTERN BANK OF ROAD CUT, NORTHERN COMPONENT OF SITE 1

MANUFACTURING WASTE

Flakes

Fine-grain Meta-volcanics

greater than 3 cm	2
less than 3 cm but greater than 2 cm	6
less than 2 cm but greater than 1 cm	5
less than 1 cm	0

Chert

greater than 3 cm	0
less than 3 cm but greater than 2 cm	3
less than 2 cm but greater than 1 cm	9
less than 1 cm	13

Fused Shale

greater than 3 cm	0
less than 3 cm but greater than 2 cm	0
less than 2 cm but greater than 1 cm	1
less than 1 cm	11

Core	1

FOOD WASTE

Faunal Remains	11

TOOLS

Bone Awl	1
Flake Knife	1
Flake Scraper	2

RECENT ARTIFACTS

Glass Fragments	3
22 Cal. Cartridges	3
Porcelain Fragments	1
Iron Bolt	1

CULTURAL RESOURCE EVALUATION OF LAS VIRGENES MUNICIPAL WATER DISTRICT SLUDGE DISPOSAL ALTERNATIVES

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July 1977

TABLE OF CONTENTS

Page

INTRODUCTION

Project 1
Culture History 1
Cultural Resources 2

METHODOLOGY

Archival Investigation 3
Field Investigation 3

DATA

LAn-229 4
LAn-730 4
LAn-840 5

IMPACTS

MITIGATION 5
SUMMARY 7
BIBLIOGRAPHY 8
APPENDIX A 9
MAP 1

INTRODUCTION

Project: The Las Virgenes Municipal Water District is considering a number of alternative plans for sludge disposal. Alternative landspreading sites, methods of sludge transportation, and utilization of land after sludge application are areas of decision making that may affect cultural resources. Three spreading sites are under consideration: Sampo Ranch, L.M. Ross property, and May Hunter property (see Map 1 for locations and extent). In each case the terrain is relatively flat and has been utilized for agriculture or pasture. Transport alternatives consist of trucking or pumping sludge through pipe lines. The proposed pipe line would be within the existing right of way of Malibu Canyon Road. Alternatives for land use after application of sludge are crop production, production of sod, or no crop.

Culture History: This topic area is addressed in the archaeological records search produced for the Las Virgenes Water District (Rosen 1976) and by a recent environmental assessment within the district (Leonard 1977). Primary sources for these summaries are King (1967), King, Blackburn and Chandonet (1968), and Leonard (1971). The Malibu Creek drainage system contains archaeological resources that reflect cultural development from earliest occupation of the Santa Monica Mountains until the present.

The earliest well documented habitation sites represent relatively small populations whose economy is based on the collection of plant foods. Sites from this period in the interior of the Santa Monica Mountains tend to be relatively large camps situated on low knolls in open canyons or valleys. The cultural assemblage from these sites represents all facets of the economy. These occupation sites may date from 7500 to 1800 to 1500 years old. During this period there are general trends toward greater resource utilization, population growth, and increased interaction with populations of other regions. Archaeological assemblages indicate 2000 to 1500 years ago inland populations had regularized contacts with coastal based populations and populations to the north and west of the Santa Monica Mountains. Resource utilized had grown to the point that satellite camps were occupied seasonally. From this period until deterioration of the aboriginal system in the late 1700's settlement pattern becomes increasingly complex. The base camp or village was the focus of activity. These sites included permanent features such as houses, storage facilities, and cemeteries. Satellite camps ranged from day use collecting or processing stations utilized by an individual or small group to multi-purpose camps occupied by a sizable portion of a village population.

The presence of Europeans and the development of the mission system quickly altered the aboriginal lifestyle and the uses of the project vicinity. The Las Virgenes region fell within the lands of Mission San Fernando. Following secularization the project vicinity was used for grazing and limited agriculture (see Appendix A for historic sketch).

The project area may contain a wide range of archaeological sites. A major complex of aboriginal villages existed at the confluence of Stokes Creek, Las Virgenes Creek, and Malibu Creek. Temporary collecting and processing also occur in Las Virgenes Canyon and tributaries of this drainage. Historic sites may include family residences associated with farming and cattle grazing, temporary camps associated with grazing, and remains of the movie industry.

Cultural Resources: Evidence for prehistoric and historic use is confined to archaeological and historical resources. For the most part reconstruction of past lifestyles is derived from archaeological sites - locations that represent systematic, patterned use by Man - historic aboriginal and European or Asian research may be augmented by written records. Modifications of the natural environment brought about by Man define the location and extent of archaeological sites. Sites are locations exhibiting significant concentrations or the presence of one or more of the following categories of cultural remains: food waste, waste from the production and maintenance of artifacts and facilities, artifacts and facilities, modifications or natural rock surfaces, alignments or concentrations of stones, accumulations or discoloration of soil, or the presence of human skeletal remains. The scope of this investigation includes prehistoric and historic remains.

METHODOLOGY

Archival Investigation: In 1976 the UCLA Archaeological Survey produced an archaeological records search for the service area of the Water District. Inasmuch as the Resource Agency of the State Department of Parks and Recreation conducted a large scale archaeological reconnaissance subsequent to this inventory a second literature search was requested for the specific areas under consideration for this project. An historical overview was conducted by Michael McIntyre of the Northridge Archaeological Research Center (Appendix A).

Field Investigation: The project site was visited on two occasions during the months of June and July, 1977. Each landspread site was visited as was the right of way of Las Virgenes Road. Due to heavy ground cover over much of L.M. Ross property and portions of the May Hunter property and the Sampo Ranch not all the areas to be directly affected were investigated in a systematic manner. A heavy growth of weeds covered 90 to 95% of the Ross property; high ground and the periphery of the parcel were covered on foot. Approximately 40% of the Hunter property was also covered by lush weedy growth; those areas where the ground could be observed were covered in a systematic manner. Portions of the Sampo Ranch were under cultivation or fallow with heavy weed stands; approximately 70% of this area was observed in a systematic manner. Despite the lack of total coverage, the areas observed plus information derived from archival sources provides a data base sufficient to make evaluative statements regarding the relative sensitivity of each parcel.

DATA

The recent literature search of the UCLA records indicates the presence of 14 archaeological sites within 500 feet of the project area (Map 1). The majority of these sites are located on the banks of Las Virgenes Creek and represent villages or multi-purpose temporary camps. Four of these sites have been excavated; the information from LAn-225, 227, and 229 (the Century Ranch sites) have been published (King, Blackburn and Chandonet 1968), the fourth site, LAn-840, was excavated earlier this year by a UCLA field class.

Field reconnaissance, associated with this study, did not locate additional sites; however, the boundaries of one site, LAn-730, were enlarged. Two archaeological sites fall within the project area, and subsurface features of a third may also occur within the project.

LAn-229 is a major late prehistoric-historic village. The aboriginal name for this site is thought to be Talopop (King, Blackburn and Chandonet 1968). Portions of this site were excavated in 1961. The deposit is located south of the intersection of Mulholland and Las Virgenes Canyon Road. The site measures approximately 750 x 225 feet; approximately 500 feet of deposit is divided by Las Virgenes Canyon Road. The average depth of deposit is three feet. During road construction approximately six to twelve inches of deposit was removed. The remainder of the site has suffered no other significant disturbances. The UCLA literature search regards this site as being eligible for listing on the National Register. The author would concur with this statement. Few late period villages remain within the Santa Monica Mountains. Information from this village would be critical to analyses regarding the relationships of coastal based populations to those of the interior Santa Monica Mountains and the San Fernando Valley. Malibu Canyon and Las Virgenes Canyon were the historic dividing line between the Chumash and the Gabrielino. The village of Talopop was probably an important link in the relations between the coastal village of Maliwu (Chumash) and Gabrielino villages in the San Fernando Valley.

LAn-730 was recorded during the 1976 reconnaissance of Malibu Creek State Park. At that time the eastern extent of this site was defined by Las Virgenes Canyon Road. The site was recorded as a large occupation site on the eastern bank of Las Virgenes Canyon Creek.

Field work associated with this project located material on the eastern side of Las Virgenes Canyon Road on the Sampo Ranch Property (Map 1). Stone tools and manufacturing waste were observed along the road cut. No artifacts or manufacturing waste were observed in the plowed field; however, the soil was noticeably darker in that portion of the field adjacent to the cultural remains in the road cut. The Sampo Ranch property apparently contains the eastern margin of LAn-730, an area measuring approximately 100 by 40 feet. The depth of deposit probably does not exceed 18 inches. Few cultural remains were observed; however, the few that were observed and the size and location of the deposit indicate this is a village or major temporary camp site. The presence of the material fused shale in the stone manufacturing waste, and a fragment of a "flower-pot" mortar suggest the site dates after 200 to 500 A.D.

LAn-840 is located within the May Hunter property and directly adjacent to the area of proposed use. While the occupation area of the site, as indicated by the presence of stone tools and manufacturing waste, will not be directly affected, there may be subsurface features within the area of direct impact. LAn-840 is part of the village complex represented by LAn-225, 227, and 229. Like those sites it probably has certain features in association with the main habitation area. It is likely that some subsurface features (either associated with the subsistence round, i.e., a roasting pit, or the ceremonial aspect i.e., cemetery or mourning ceremony feature) exist on the flat alluvial area to the west of the site. This area would be directly affected by sludge disposal. Darkened soil was observed in this area, however, no positive evidence of human origin could be observed. Information regarding the temporal placement of this site was not observed in the field; inasmuch as this property is the least likely of the three to be developed, temporal information from the field class excavation was not investigated.

No other cultural resources were observed in the areas to be directly affected. One additional site, a recent house probably associated with dry farming, was observed on the Sampo Ranch (Map 1). Cultural debris indicated that this house could have been occupied between the 1930's and the last few years. Cement foundations and household debris remain directly adjacent to an area of proposed use.

IMPACTS

Disposal of sludge would alter the soil chemistry and increase soil moisture. These changes would have a significant effect upon faunal (food) remains and human skeletal remains. Inasmuch as all the lands with the possible exception of the Hunter property have been previously cultivated, the utilization of land after sludge application would not be an important factor in site choice.

The three alternative sites for landspreading may be ranked according to cultural resource sensitivity. No cultural resources were observed on the Ross property. Although nearly all of this land was overgrown it may be expected that no archaeological sites exist on this land, or if material is present it will be in the form of a limited use site and have been significantly affected by cultivation. One archaeological site was recorded on the Sampo Ranch property. This site will be directly affected by proposed land use. Portions of this land were not observed; it is possible that additional resources may exist. However, as in the case of the Ross property, additional remains would probably be of limited extent and have been impacted by agriculture. The May Hunter property exhibited one site, this site was outside the area to be directly affected; however, the proximity of this site and other village deposits create the strong possibility that sub-surface remains may be present within the area to be directly affected. Use of this parcel may have significant adverse impacts. Additional archaeological remains may be present within those areas not investigated. These remains may take the form of complex deposits or may be limited to small temporary camps. Despite the lack of positive evidence within the area to be directly effected, outside factors suggest this property is the most sensitive of the three under consideration.

Construction of the pipe line to transport sludge would effect one archaeological site. According to field observations by the excavators of LAn-229, approximately 500 feet of this site would be affected by pipe line excavation. Their surface estimates were qualified by a statment that the area of "concentrated midden is about 300 by 125 feet" (King, Blackburn, and Chandonet 1968). The figure of 300 feet is more in agreement with estimates by the author of midden extent that would be adversely effected. Midden with sufficient depth not to have been totally destroyed by road construction was estimated; 350 feet of pipe line trench will affect undisturbed deposit. Current plans describe the excavation for the pipe to be a narrow trench for a 4 to 6 inch pipe excavated to a depth of about 24 inches. Any alteration of undisturbed deposit will have an adverse effect upon this cultural resource. However, the size of the trench excavation would probably not cause significant adverse effects - effects that would argue for a no project decision.

MITIGATION

It is possible to avoid or adequately mitigate adverse effects to cultural resources in all development alternatives with the possible exception of the use of the Hunter property.

Use of the Ross property will probably not have an adverse effect upon cultural resources. This property could be utilized provided an archaeoloigst reviews the land at a time when the ground surface is visible. This inspection would confirm or reject the premise that no resources exist on the property. If a site is present, it should be possible to adequately mitigate adverse impact resulting from use.

Adverse impacts to LAn-730 could be avoided by not utilizing the site area for sludge disposal. If this area must be used, adverse impacts could be lessened by a program of archaeological excavation prior to modifications of the land. The probability of additional sites on this land is not great. The precaution of site inspection, described for the Ross property should be followed if the Sampo Ranch is to be utilized.

A time consuming and costly program would be required to clear the Hunter property for use. The possibility of a cemetery, which would be adversely affected by changes in soil chemistry and moisture content, exists. An extensive program of subsurface testing would have to be undertaken to make negative statements regarding the presence of cultural resources.

Trucking sludge would be preferable to transporting by pipe line. However, adverse impacts to LAn-229, that would result from trench excavation could be mitigated. Construction plans should design the pipe at a minimum allowable depth; reduction of depth will greatly decrease disturbance of intact archaeological deposit. As a safeguard, an archaeologist should be present during the excavation of the trench. This individual should have the ability to re-direct work for short periods of time should important remains be uncovered.

SUMMARY

Important cultural resources occur adjacent to and within those areas under consideration. An absolute - no effect- statement can not be made for any of the project alternatives; however, under certain conditions all but the Hunter property can be developed without significant adverse impacts to cultural remains.

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nd "An Archaeological Evaluation of the Proposed Calabasas Park Water Line." Report prepared for EDAW Inc. 220 Newport Center Drive, Newport Beach, CA. 1977.

Rosen, Martin Dean

nd "Evaluation of the Archaeological Resources for the Areawide Facilities Plan for the Las Virgenes Municipal Water District (Malibu Coast, Western Santa Monica Mountains, Southern Simi Hills), Los Angeles and Ventura Counties." Report prepared for Boyle Engineering Corp. P.O. Box 3030, Newport Beach, CA. 1976.

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nd "An Archaeological Evaluation of the Proposed Calabasas Park Water Line." Report prepared for EDAW Inc. 220 Newport Center Drive, Newport Beach, CA. 1977.

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APPENDIX A

A BRIEF HISTORICAL SKETCH OF THE LAS VIRGENES AREA

by

Michael J. McIntyre

The historic period of California history can be divided into three main phases. Beginning with the period of intensive Spanish exploration and colonization (A.D. 1769-1822), through the Mexican Period (A.D. 1822 to 1847), and culminating with the Anglo or American Period (A.D. 1847 to present), all areas of California passed through many stages of historic development in terms of subsistence, economy and ethnicity. Most, if not all, of these stages can be documented for the Las Virgenes area.

The Las Virgenes area was relatively unaffected with the first arrival of the Spanish in 1769. The Spanish explorer Gaspar de Portola passed through the Calabasas area in 1769 returning to San Diego from the San Francisco Bay area. Juan Bautista de Anza followed similar routes in 1774 and 1776 again passing through the Calabasas area. Following this period of Spanish Exploration came a period of Colonization with the founding of Franciscan Missions and Spanish Presidios and Pueblos. These new "outposts" permitted a population increase which resulted in an increase in the movement through the subject area. A branch of the famous El Camino Real left the San Fernando Valley via Calabasas to Las Virgenes and then on to the Mission San Bueanaventura. This thoroughfare was used by soldier, priest, and civilian, and is followed today by the Ventura Freeway.

Land grants, in the form of large Ranchos, were instrumental in the settling of land in this area. Although popularly referred to as "Spanish" ranchos, land grants were only made during the Mexican Period. Grants or concessions during the Spanish Period (of which there were 25 for California) only permitted settlement and the use of a specific tract of land with the actual title still remaining with the King of Spain. These concessions were actually no more than grazing permits. One such concession, El Paraje de Las Virgenes, was granted in the general area. During the 1830's, it became a Mexican land grant, Rancho Las Virgenes (8878 acres), awarded to Maria Antonio Machado (whose family was already in possession of some grants in the

Baldwin Hills area). Other Ranchos in the general area include Rancho Topanga Malibu Sequit (awarded to Jose Bartolome Tapia) to the south, Rancho El Escorpion (awarded to three Indian brothers - Oden, Urbano and Manuel) to the north, Rancho Mission de San Fernando (awarded to the San Fernando Mission) to the northeast, and Rancho San Vicente y Santa Monica (awarded to Francisco Sepulveda) to the southeast. During this period the primary land use pattern consisted of virtually unrestricted grazing of cattle and horses with some agriculture, all activities mainly attended to by Indian labor. By the end of the Mexican Period, many people (mostly new arrivals from the East Coast) were settling on these Ranchos. These settlers or squatters caused many a legal problem for the Rancho owners especially when title to these Ranchos were re-examined and sometimes reapportioned by the U.S. Government.

The Ranchos continued in existence through most of the American Period (with American owners), and Las Virgenes remained the scene of continual grazing and agriculture. Most of the development occurring at this time was taking place in the Los Angeles Basin. Travel during the latter half of the 19th Century was mainly by stage, wagon, or horse on roads that ran, via Calabasas, down Topanga Canyon to the Ocean, and along the El Camino Real to the San Fernando Valley, Los Angeles or Ventura. It is conceivable that what is now Las Virgenes Road could have been used for traffic but it would have had to be abandoned by 1887 when the Rancho Malibu, to the immediate south, was closed to outsiders crossing it. During the early 20th Century, the great landholdings of the Ranchos dwindled as more people moved into the area and limited subdivision began. Hollywood also became interested in the area, utilizing the picturesque landscape in many pictures. Warner Brothers and Twentieth Century-Fox each bought large ranches to shoot their movies on. Not only did the film studios come into the area but the film stars did too with Joel McCrea, Bob Hope and Frances Dean among many of the stars who owned ranches in the area. King C. Gillette (the Razor Blade Baron) built a mansion on what is now the Claretville Seminary which was later bought by Clarence Brown (who had also bought the Los Encino Rancho). Modern uses of the Las Virgenes area, in addition to the movie ranches, include recreation (summer camps, Tapia County Park, and Malibu State Park), religious (the Seminary), corrective (David Gonzales Honor Farm) as well as the large and small private ranches engaged in grazing, dry farming or "land speculation." Just as the main portion of the San Fernando Valley has passed through the stages of rural, farm-village, small town, suburban, new-suburban, urban fringe, city, and metropolitan, the peripheral areas, including Las Virgenes, are also passing through these stages, though at a reduced pace. Thus, this area has gone through many land use changes, from a subsistence base for the aboriginal population, to grazing and agriculture to modern urbanization in a space of just over 200 years of recorded history.

SUMMARY OF NELSON LEONARD'S QUALIFICATIONS

EDUCATION:

1967 B.A. Anthropology, University of California, Los Angeles

Graduate Study 1968 to 1971 Anthropology, University of California, Los Angeles.

78 units of graduate course work.

M.A. paper ("The Process of Change in the Santa Monica Mountains 5000 BC to 1800 AD) accepted 1971.

POSITIONS HELD

1968 to 1970 Survey Archaeologists, UCLA Archaeological Survey

1970 to 1973 Chief Archaeologist, UCLA Archaeological Survey

1975 to present Chief Archaeologist, UCR Archaeological Research Unit

1967 to present Project Director or Principal Investigator for Archaeological Site Identification and Evaluation Projects for Federal, State, and local agencies, and private concerns

RESEARCH AND PUBLICATION

1964 to present Project Director for site reconnaissance and excavation projects within the Santa Monica Mountains.

1965 to present Conducted analysis of artifactual and faunal remains from sites in the Santa Monica Mountains.

1966 to present Author or Editor of papers and publications concerned with the culture history of the Santa Monica Mountains.

Appendix I

APPENDIX, AIR QUALITY IMPACT

Mobile Source Emissions

The 1974 Travel Pattern in the Study Area as estimated by LARTS is as follows:

1974 Travel Pattern

Area	Freeway VMT	+	Other Road VMT	=	Total VMT	VMT/ Capita
Las Virgenes	1,209,544 (85%)		209,714 (15%)		1,419,258 (100%)	52.64
Triunfo	196,800 (76%)		49,442 (24%)		256,242 (100%)	23.97
Total	1,406,344 (84%)		269,156 (16%)		1,675,500 (100%)	

A total 1990 VMT for the Study Area (without Freeway or Other Road breakdown) has been established using population accommodation figures and differing VMT/capita.

1990 VMT Estimates

Area	1990 Accommodated Population w/AWFP	X	VMT/Capita	=	Total 1990 VMT
Las Virgenes	46,900		37.79* or 52.64**		2,468,816* or 1,772,351**
Triunfo	29,400		18.69* or 23.97**		704,718* or 549,486**
				Totals	3,173,534* or 2,321,837**

* based on existing travel patterns
** based on 1990 travel patterns (less vehicular use)

LARTS 1990 VMT ESTIMATE

Area	LARTS 1990 Population	X	VMT/Capita	=	LARTS 1990 VMT
Las Virgenes	43,000		37.79		1,624,935
Triunfo	31,264		18.69		584,204
				Totals	2,209,139

These 1990 VMT estimates have been broken into Freeway and Other Road travel by using similar proportions to those estimated in 1974 and 1990 by LARTS.

1990 With Existing Travel Patterns

Area	Freeway VMT	Other Road VMT	Total VMT
Las Virgenes	2,110,815 [1]	358,001 [1]	2,468,816
Triunfo	554,954 [1]	149,764 [1]	704,718
Totals	2,665,769	507,765	3,173,534

1990 With Lesser Vehicular Use

Area	Freeway VMT	Other Road VMT	Total VMT
Las Virgenes	1,237,307	457,634	1,694,941
Triunfo	457,634	169,262	626,896
Totals	1,694,941	626,896	2,341,834

These VMT totals (1974, 1990 Potential Case and 1990 Base Case) have been apportioned into vehicle class and converted to emission in tons/day by use of composite emission factor data as published in EPA Publication AP-42. The following table illustrates these emission calculations.

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[1] Proportions are derived from LARTS 1990 estimate (see Table 12).

PROJECTED MOBILE EMISSIONS IN STUDY AREA IN TONS/DAY

1974 Vehicle Emissions

Freeway Travel @ 50 mph

			CEF		Conversion		Emissions	
Vehicle Class	VMT	CO	THC	NO_x	Factor	CO	THC	NO_x
Light Duty Gas Powered	1,298,477	26.37	3.77	4.68	1.1023×10^{-6}	37.74	5.40	6.70
Heavy Duty Gas Powered	42,050	111.43	16.20	11.85	1.1023×10^{-6}	5.17	0.75	0.55
Heavy Duty Diesel Powered	42,879	7.4	2.45	27.67	1.1023×10^{-6}	0.43	0.14	1.61
Motorcycle 4 stroke	7,763	8.82	3.21	.43	1.1023×10^{-6}	0.08	0.03	0.004
Motorcycle 2 stroke	5,175	8.82	2.61	.43	1.1023×10^{-6}	0.005	0.02	0.002
Sub Total	1,406,344					43.47	6.34	8.87

Other Road Travel @ 40 mph

			CEF		Conversion		Emissions	
Vehicle Class	VMT	CO	THC	NO_x	Factor	CO	THC	NO_x
Light Duty Gas Powered	248,512	30.43	4.23	4.39	1.1023×10^{-6}	8.34	1.18	1.20
Heavy Duty Gas Powered	8,048	120.3	17.98	11.16	1.1023×10^{-6}	1.07	.16	.10
Heavy Duty Diesel Powered	10,120	10.39	2.75	26.71	1.1023×10^{-6}	.12	.03	.30
Motorcycle 4 stroke	1,486	8.82	3.21	.43	1.1023×10^{-6}	.01	.01	0
Motorcycle 2 stroke	981	8.82	2.61	.43	1.1023×10^{-6}	.10	0	0
Sub Total	296,156					9.55	1.38	1.6

Total 1974 Vehicle Emissions	53.02	7.72	10.47

PROJECTED MOBILE EMISSIONS IN STUDY AREA IN TONS/DAY (continued)

1990 Vehicle Emissions With Existing Travel Patterns

Freeway Travel @ 40 mph

		CEF				Emissions		
Vehicle Class	VMT	CO	THC	NO_x	Conversion Factor	CO	THC	NO_x
Light Duty Gas Powered	2,461,305	1.84	.58	.8	$1.1023x10^{-6}$	4.99	1.57	2.17
Heavy Duty Gas Powered	79,706	69.51	4.91	13.74	$1.1023x10^{-6}$	6.11	.43	1.21
Heavy Duty Diesel Powered	100,233	10.39	2.75	25.72	$1.1023x10^{-6}$	1.15	.30	2.84
Motorcycle 4 stroke	14,715	8.82	3.21	.43	$1.1023x10^{-6}$	0.14	0.05	.01
Motorcycle 2 stroke	9,810	8.82	2.61	.43	$1.1023x10^{-6}$	.10	0.03	0
Sub Total	2,665,769					12.39	2.38	6.23

Other Road Travel @ 20 mph

		CEF				Emissions		
Vehicle Class	VMT	CO	THC	NO_x	Conversion Factor	CO	THC	NO_x
Light Duty Gas Powered	468,819	3.98	.88	.69	$1.1023x10^{-6}$	2.06	.45	.36
Heavy Duty Gas Powered	15,183	124.49	9.28	12.34	$1.1023x10^{-6}$	2.08	.16	.19
Heavy Duty Diesel Powered	19,092	25.37	4.26	21.14	$1.1023x10^{-6}$	.53	.09	.44
Motorcycle 4 stroke	2,803	8.82	3.21	.43	$1.1023x10^{-6}$	.03	.01	0
Motorcycle 2 stroke	1,868	8.82	2.61	.43	$1.1023x10^{-6}$	.02	.01	0
Sub Total	507,765					4.72	.72	.99

Total 1990 Vehicle Emissions, Base Case	CO	THC	NO_x
	17.11	3.1	7.22

PROJECTED MOBILE EMISSIONS IN STUDY AREA IN TONS/DAY (continued)

1990 Vehicle Emissions With Less Vehicle Use

Freeway Travel @ 45 mph

Vehicle Class	VMT	CEF			Conversion Factor	Emissions		
		CO	THC	NO_x		CO	THC	NO_x
Light Duty Gas Powered	1,564,939	1.67	.53	.83	$1.1023x10^{-6}$	2.88	.91	1.43
Heavy Duty Gas Powered	50,679	64.5	4.48	14.09	$1.1023x10^{-6}$	3.60	.25	.79
Heavy Duty Diesel Powered	63,730	8.90	2.59	26.18	$1.1023x10^{-6}$	.63	.18	1.84
Motorcycle 4 stroke	9,356	8.82	3.21	.43	$1.1023x10^{-6}$	.09	.03	0
Motorcycle 2 stroke	6,237	8.82	2.61	.43	$1.1023x10^{-6}$	.06	.02	0
Sub Total	1,694,941					7.26	1.39	4.06

Other Road Travel @ 25 mph

Vehicle Class	VMT	CEF			Conversion Factor	Emissions		
		CO	THC	NO_x		CO	THC	NO_x
Light Duty Gas Powered	578,813	3.05	.88	.72	$1.1023x10^{-6}$	1.95	.56	.46
Heavy Duty Gas Powered	18,744	102.50	7.64	12.69	$1.1023x10^{-6}$	2.12	.16	.26
Heavy Duty Diesel Powered	23,572	19.70	3.77	22.67	$1.1023x10^{-6}$	.51	.10	.59
Motorcycle 4 stroke	3,460	8.82	3.21	.43	$1.1023x10^{-6}$	.03	.01	0
Motorcycle 2 stroke	2,307	8.82	2.61	.43	$1.1023x10^{-6}$	.02	.01	0
Sub Total	626,896					4.63	.84	1.31
Total 1990 Vehicle Emissions, Potential Case						11.89	2.23	5.37

PROJECTED MOBILE EMISSIONS IN STUDY AREA IN TONS/DAY (continued)

1990 Vehicle Emissions, No Growth Case

Freeway Travel @ 50 mph

Vehicle Class	VMT	CEF CO	CEF THC	CEF NO_x	Conversion Factor	Emissions CO	Emissions THC	Emissions NO_x
Light Duty Gas Powered	1,298,477	1.5	.50	.85	1.1023×10^{-6}	2.15	.72	1.22
Heavy Duty Gas Powered	42,050	62.2	4.2	14.44	1.1023×10^{-6}	2.88	.19	.67
Heavy Duty Diesel Powered	52,879	7.4	2.45	26.64	1.1023×10^{-6}	.43	.14	1.55
Motorcycle 4 stroke	7,763	8.82	3.21	.43	1.1023×10^{-6}	.08	.03	.004
Motorcycle 2 stroke	5,175	8.82	2.61	.43	1.1023×10^{-6}	.05	.01	.002
Sub Total	1,406,344					5.59	1.09	3.45

Other Road Travel @ 40 mph

Vehicle Class	VMT	CEF CO	CEF THC	CEF NO_x	Conversion Factor	Emissions CO	Emissions THC	Emissions NO_x
Light Duty Gas Powered	248,512	1.84	.58	.80	1.1023×10^{-6}	.50	.16	.22
Heavy Duty Gas Powered	8,048	69.51	4.91	13.74	1.1023×10^{-6}	.62	.04	.00
Heavy Duty Diesel Powered	10,120	10.39	2.75	25.72	1.1023×10^{-6}	.12	.09	.29
Motorcycle 4 stroke	1,486	8.82	3.21	.43	1.1023×10^{-6}	.01	.01	.00
MOtorcycle 2 stroke	981	8.82	2.61	.43	1.1023×10^{-6}	.01	.00	.001
Sub Total	296,156					1.26	.24	.51

	CO	THC	NO_x
Total 1990 Vehicle Emissions, No Growth Case	6.85	1.33	3.96

APPENDIX AIR QUALITY IMPACT

Stationary Sources

Stationary source emissions for total hydrocarbons from selected categories for Ventura and Los Angeles Counties derived from the Preliminary Emissions Inventory and Air Quality Forecast 1974-1995 are shown here:

Stationary Source Emissions (THC) 1974 in tons/day

Selected Category[1]	Ventura County	Los Angeles County
Petroleum Marketing	6.8	113.2
Organic Solvent Use	16.2	352.5
Combustion of Fuel		
Other Industrial	.4	1.0
Domestic & Commercial	.1	
Total	23.5 tons	466.7 tons
1974 Population[2]	427,000	6,955,500
Tons/capita	.000055	.000067

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[1] Categories that have been omitted (THC) are:

	1974 SCAB	1990 SCAB
Petroleum Production	61.2 tons	66.1 tons
Refining	47.9 tons	63.5 tons
Processing (Chemcial, Metallurgical Food & Ag Processing, Pesticides, Wood Processing)	12.9 tons	17.4 tons
Combustion of Fuels (Refineries, Power Plants, Orchard Heaters)	17.9 tons	19 tons
Waste Burning	2.1 tons	2.5 tons
Miscellaneous Area Sources	64.4 tons	72.2 tons

[2] California Department of Finance

Stationary Source Emissions (THC) 1990 in tons/day

Selected Category	Ventura County	Los Angeles County
Petroleum Marketing	3.4	34
Organic Solvent Use	30.6	451.2
Combustion of Fuels		
Other Industrial	1.1	1.9
Domestic & Commercial	.2	
Total	35.3 tons	487.1 tons
1990 Population[1]	632,000	7,557,000
Tons/capita	.0000558	.0000644

These emissions per capita estimates have been applied to Study Area population projections to arrive at estimated total hydrocarbon emissions in tons/day for the Study Area.

Study Area Stationary Source Emissions - Total Hydrocarbons in tons/day

	74 Population	THC tons/capita	THC Emissions
Las Virgenes	26,960	.000067	1.8
Triunfo	10,692	.000055	.59
Malibu	14,007	.000067	.94
Topanga	10,766	.000067	.72
		1974 Total	4.05 tons/day

	90 Population	THC tons/capita	THC Emissions
Las Virgenes	45,500	.00064	2.91
Triunfo	26,600	.00056	1.49
Malibu	40,000	.00064	2.56
Topanga	17,800	.00064	1.14
		1990 Total	8.1 tons/day

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[1] SCAG 76 population projections.

APPENDIX AIR QUALITY IMPACT

SCAB Emission Estimates

In order to draw comparison with entire South Coast Air Basin projections, corresponding vehicle and stationary source classifications were derived from the California Air Resources Board and from the Boundaries and Forecasting Committee report, Preliminary Emissions Inventory and Air Quality Forecast 1974-1995 and its Appendix. Mobile emission estimates for the SCAB are preliminary figures developed by ARB and have been used here since emission factors used were also from EPA document AP-42; however, certain assumptions used do vary, such as VMT projections and vehicle classifications. Mobile source emission estimates from the Boundaries and Forecasting Committee report were not used since emission factors differed from those used here; however, stationary source emission estimates for categories analyzed have utilized the committee's report for the SCAB.

SCAB Emissions in tons/day

		1974[1]			1990	
Source	CO	THC	NO_x	CO	THC	NO_x
Mobile (all vehicles)[2]	6,250	752.75	937.75	2,188	723.5	390.8
Stationary[3]		412.3			604	
Total	6,250	1,165.05	937.75	2,188	1,327.5	390.8

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1. Interpolation made from ARB 1973 and 1975 estimates.
2. Includes: Light Duty Gas Powered Passenger, Light Duty Gas Powered Trucks, Medium Duty Gas Powered Trucks, Heavy Duty Gas Powered Trucks, Heavy Duty Diesel Powered Trucks and Motorcycles.
3. Includes: Petroleum Marketing, Organic Solvent Use, Combustion of Fuels by Other Industrial, and Combustion of Fuels Domestic and Commercial.

Appendix J

RESOLUTION NO. 7-77-921

A RESOLUTION OF THE BOARD OF DIRECTORS OF LAS VIRGENES MUNICIPAL WATER DISTRICT RELATING TO THE DISTRICT'S PARTICIPATION IN AIR QUALITY MAINTENANCE PLANS

WHEREAS, the District proposes to make application to the State of California and to the United States of America for funds to expand the Tapia Wastewater Reclamation Facility (Tapia Plant); and

WHEREAS, the District has been informed by the State of California and by representatives of the Environmental Protection Agency that such grants will not be provided to the District unless the District agrees to participate in the appropriate Air Quality Maintenance Plan; and

WHEREAS, the District desires to memorialize its commitment to Air Quality Maintenance Planning by this resolution.

NOW, THEREFORE, BE IT RESOLVED, FOUND AND DETERMINED BY THE BOARD OF DIRECTORS OF LAS VIRGENES MUNICIPAL WATER DISTRICT as follows:

Section 1. Las Virgenes Municipal Water District recognizes that the expansion of the Tapia Wastewater Reclamation Facility (hereinafter referred to as "the Project") may interfere with the attainment and maintenance of air quality standards, but the project is needed to solve a critical water quality problem, and that adequate steps to mitigate the air quality impact have been taken or are planned.

Section 2. Las Virgenes Municipal Water District agrees to participate in the development of an Air Quality Maintenance Plan covering the project and will commit appropriate and necessary resources, as mutually agreed upon between the Air Quality Maintenance Planning Team and Las Virgenes Municipal Water District towards development of said plan.

Section 3. Upon the adoption of an Air Quality Maintenance Plan, Las Virgenes Municipal Water District shall render mutually agreeable, reasonable, non-financial assistance consistent with its statutory authority for the implementation of said plan.

PASSED, APPROVED AND ADOPTED this 25th day July, 1977.

Asker Hansen
President

ATTEST:

Ralph W. Venus
Secretary

(SEAL)

STATE OF CALIFORNIA)
) SS.
COUNTY OF LOS ANGELES)

I, RALPH W. VENUS, Secretary of the Board of Directors of Las Virgenes Municipal Water District, DO HEREBY CERTIFY that the foregoing resolution was duly adopted by the Board of Directors of said District at a regular meeting of said Board held on the 25th day of July, 1977, and that it was so adopted by the following vote:

AYES: Directors Stelle, Long, Hansen, Venus, Dorgelo

NOES: Directors None

ABSENT: Directors None

Ralph W. Venus
Secretary of Las Virgenes Municipal Water District and of the Board of Directors thereof.

(SEAL)

STATE OF CALIFORNIA)
) SS.
COUNTY OF LOS ANGELES)

I, RALPH W. VENUS, Secretary of the Board of Directors of Las Virgenes Municipal Water District, DO HEREBY CERTIFY that the above and foregoing is a full, true and correct copy of Resolution No. 7-77-921 of said Board, and that the same has not been amended or repealed.

DATED: July 25, 1977

Ralph W. Venus
Secretary of Las Virgenes Municipal Water District and of the Board of Directors thereof

(SEAL)

RESOLUTION NO. 236

aye

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF HIDDEN HILLS RELATING TO AIR QUALITY MAINTENANCE PLANS

WHEREAS, the Las Virgenes Municipal Water District proposes to make application to the State of California and to the United States of America for funds to expand the Tapia Wastewater Reclamation Facility; and

WHEREAS, the District has been informed by the State of California and by representatives of the Environmental Protection Agency that such grants will not be provided to the District unless the District agrees to participate in the appropriate Air Quality Maintenance Plan and solicits the agreement of various agencies, including the City, to participate in such plans; and

WHEREAS, the City desires to memorialize its commitment to Air Quality Maintenance Planning by this resolution;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF HIDDEN HILLS RESOLVES as follows:

SECTION 1. The City recognizes that the expansion of the Tapia Wastewater Reclamation Facility (hereinafter referred to as the "Project") may interfere with the attainment and maintenance of air quality standards, but the Project is needed to solve a critical water quality problem, and that adequate steps to mitigate the air quality impact have been taken or are planned.

SECTION 2. The City agrees to participate in the development of an Air Quality Maintenance Plan covering the Project and subject to mutual agreement between the Air Quality Maintenance Planning Team and the City, may commit appropriate and necessary resources towards development of said plan.

SECTION 3. Upon the adoption of an Air Quality Maintenance Plan, the City of Hidden Hills shall render mutually agreeable, reasonable, non-financial assistance consistent with its statutory authority for the implementation of said plan.

PASSED, APPROVED AND ADOPTED this 29th day of August 1977.

JOHN P. WILLOUGHBY
MAYOR

ATTEST:

EILEEN H. HENRY
CITY CLERK

(SEAL)

I, Eileen H. Henry, City Clerk for the City of Hidden Hills, California, do hereby certify that the foregoing Resolution No. 236 is a true and correct copy adopted by the City Council of the City of Hidden Hills at an adjourned meeting thereof held on August 29, 1977.

Eileen H. Henry
Eileen H. Henry, City Clerk
City of Hidden Hills, Calif.

BOARD OF SUPERVISORS, COUNTY OF VENTURA, STATE OF CALIFORNIA

TUESDAY, AUGUST 30, 1977, AT 9:00 O'CLOCK A.M.

425.100 - Upon motion of Supervisor Laubacher, seconded by Supervisor Eaton,
& 17 and duly carried, the Board approves the following matter:

ENVIRONMENTAL RESOURCE AGENCY
county of ventura
M. L. Koester, Director

August 30, 1977 (Agenda)

Board of Supervisors
County of Ventura
Courthouse
501 Poli Street
Ventura, CA 93001

Subject: Request for Resolution Regarding the Air Quality Impact of the Tapia Wastewater Reclamation Facility Project

Gentlemen:

STATEMENT OF MATTER FOR BOARD CONSIDERATION:

As your Board is aware, the Las Virgenes Municipal Water District and the Triunfo County Sanitation District plan to seek State and Federal funding to improve the Tapia Wastewater Reclamation Facility (Tapia Plant) which the Districts own and operate as a Joint Venture. State and Federal funding cannot be made available, however, for water quality projects which are inconsistent with air quality planning in the area. The Las Virgenes and Triunfo Districts have requested, therefore, that your Board adopt a resolution concerning the proposed modifications to the Tapia Plant based on the following findings:

(a) The County of Ventura recognizes that the project may interfere with the attainment and maintenance of air quality standards, but the project is needed to solve a critical water quality problem and that adequate steps to mitigate the air quality impact have been taken or are planned; and

(b) That upon adoption of an Air Quality Maintenance Plan the County of Ventura shall render reasonable assistance within its statutory authority for the implementation of measures identified in the Ventura County Air Quality Maintenance Plan.

The Air Pollution Control District (APCD) staff believes that all appropriate air quality mitigation measures for the Triunfo County Sanitation District portion of the Joint Venture will be incorporated into the Ventura County Air Quality Maintenance Plan (AQMP). On July 25, 1977, the Las Virgenes Municipal Water District adopted a resolution expressing its commitment to participate in the AQMP process. A similar resolution will be considered for adoption by the Board of Directors of the Triunfo County Sanitation District, on August 30, 1977. Therefore, if the Triunfo County Sanitation District Board adopts the resolution expressing the District's commitment to participate in the AQMP process, it is recommended that your Board adopt the attached resolution.

RECOMMENDED ACTION:

Adopt the attached resolution concerning the proposed improvements to the Tapia Wastewater Reclamation Facility.

Sincerely,

ENVIRONMENTAL RESOURCE AGENCY

M.L. Koester, Director

MLK:la
Attachment
cc: Las Virgenes Municipal Water District

COPIES TO:
Environmental Res. Agcy (2)
Public Works Agency (2)
Files (3)

Item 63-8/30/77 sw

I hereby certify that the annexed instrument is a true and correct copy of the document which is on file in this office.

Dated: 8/31/77

ROBERT L. HAMM, County Clerk
and Ex-officio Clerk of the
Board of Supervisors

By ______________
Deputy County Clerk

COUNTY OF VENTURA CALIFORNIA

RESOLUTION OF THE VENTURA COUNTY BOARD OF SUPERVISORS, STATE OF CALIFORNIA CONCERNING THE AIR QUALITY IMPACT OF THE TAPIA WASTEWATER RECLAMATION FACILITY MODIFICATION PROJECT

RESOLUTION NO. 17 / 425.100

WHEREAS, the Las Virgenes Municipal Water District and the Triunfo County Sanitation District are planning to modify the Tapia Wastewater Reclamation Facility which the Districts own and operate as a Joint Venture; and

WHEREAS, an Air Quality Maintenance Plan is being developed by the County of Ventura which will be directed toward achieving and maintaining the ambient air quality standards in the County; and

WHEREAS, the Air Quality Maintenance Plan is expected to be completed early in 1978; and

WHEREAS, the Las Virgenes Municipal Water District and the Triunfo County Sanitation District have both expressed a commitment to participate in the Air Quality Maintenance Planning process;

NOW, THEREFORE, BE IT RESOLVED, that the Ventura County Board of Supervisors recognizes that the modifications to the Tapia Wastewater Reclamation Facility may interfere with the attainment and maintenance of air quality standards, but the project is needed to solve a critical water quality problem and that adequate steps to mitigate the air quality impact have been taken or are planned; and

BE IT FURTHER RESOLVED that the Ventura County Board of Supervisors shall, upon adoption of an Air Quality Maintenance Plan, render reasonable assistance within its statutory authority for the implementation of measures identified in the Ventura County Air Quality Maintenance Plan.

On motion of Supervisor Laubacher, seconded by Supervisor Eaton, the foregoing resolution is adopted this day 30th of August, 1977, by the following vote:

AYES: Supervisors Eaton, Laubacher & Grandsen

NOES: None.

ABSENT: Supervisors Jones & MacDonald

Chairman, Board of Supervisors

ATTEST: ROBERT L. HAMM
County Clerk, County of
Ventura, State of California,
and ex-officio Clerk of the
Board of Supervisors thereof,

by Shirley Weeks
Deputy County Clerk

COPIES TO:
Environmental Res. Agency (2)
Public Works Agency (2)
Files (3)
Item 63a-8/30/77 sw

I hereby certify that the annexed instrument is a true and correct copy of the document which is on file in this office.

Dated:
8/30/77

ROBERT L. HAMM, County Clerk
and ex-officio Clerk of the
Board of Supervisors

By Shirley Weeks
Deputy County Clerk

TUESDAY, AUGUST 30, 1977, AT 11:30 A. M.

425.100 - Upon motion of Director Grandsen, seconded by Director Miller,
& 17 and duly carried, the Board approves the following matter:

PUBLIC WORKS AGENCY
county of ventura

Director
Donald B. Perry

Deputy Directors
D. A. Betlach
Roads & Surveyor
E. D. Shinever
Field Operations
G. J. Nowak
Flood Control & Drainage
H. P. Nitmeier
Water & Sanitation
T. M. Morgan
Special Projects
D. B. Perry
Management Services

August 30, 1977

Board of Directors
Triunfo County Sanitation District
Ventura, California

Subject: A RESOLUTION OF THE BOARD OF DIRECTORS OF TRIUNFO COUNTY SANITATION DISTRICT RELATING TO THE DISTRICT'S PARTICIPATION IN THE AIR QUALITY MAINTENANCE PLAN

Enclosed is a resolution that is being required by the State and EPA in connection with the grant application for the Tapia Plant.

Section 3 of the resolution lists the specific commitment of Triunfo to participate in the Air Quality Maintenance Plan. This language is being required by EPA to ensure that the involved agencies will cooperate in the Air Quality planning process.

The enclosed copy of the Triunfo Board letter dated May 24, 1977 contains additional information regarding the EPA requirements.

RECOMMENDATION

1. Approve the resolution relating to the District's participation in the Air Quality Maintenance Plan.

T. M. Morgan
Assistant District Engineer

CRH:cl

Enclosures: Resolution
TCSD Board ltr dated May 24, 1977
cc: Jan Bush (APCD) Resolution only

COPIES TO:
Public Works Agency (2)
Environmental Res. Agency
Files (3)
Item TSD-~~3,~~ 8/30/77

I hereby certify that the annexed instrument is a true and correct copy of the document which is on file in this office.
Dated: 8/30/77
ROBERT L. HAMM, County Clerk
and Ex-officio Clerk of the
Board of Supervisors
By
Deputy County Clerk

507 East Main Street, Ventura, CA 93001 (805) 648-6131

TCSD ITEM 3

RESOLUTION NO. 425.100

A RESOLUTION OF THE BOARD OF DIRECTORS OF TRIUNFO COUNTY SANITATION DISTRICT RELATING TO THE DISTRICT'S PARTICIPATION IN AIR QUALITY MAINTENANCE PLANS

WHEREAS, Triunfo and Las Virgenes Municipal Water District own and operate the Tapia Wastewater Reclamation Facility (Tapia Plant) as a Joint Venture; and

WHEREAS, the Joint Venture proposes to make application to the State of California and to the United States of America for funds to improve the Tapia Plant; and

WHEREAS, the Joint Venture has been informed by the State of California and by representatives of the Environmental Protection Agency that such grants will not be provided to the Joint Venture unless Triunfo agrees to participate in the appropriate Air Quality Maintenance Plan; and

WHEREAS, Triunfo desires to memorialize its commitment to Air Quality Maintenance Planning by this Resolution;

NOW, THEREFORE, BE IT RESOLVED, FOUND AND DETERMINED BY THE BOARD OF DIRECTORS OF TRIUNFO COUNTY SANITATION DISTRICT as follows:

Section 1. Triunfo recognizes that the expansion of the Tapia Wastewater Reclamation Facility (hereinafter referred to as "the Project") may interfere with the attainment and maintenance of air quality standards, but the project is needed to solve a critical water quality problem, and that adequate steps to mitigate the air quality impact have been taken or are planned.

Section 2. Triunfo agrees to participate in the development of an Air Quality Maintenance Plan covering the project and will commit appropriate and necessary resources, as mutually agreed upon between the Air Quality Maintenance Planning Team and the Joint Venture towards development of said plan.

Section 3. Triunfo further agrees to participate in the Air Quality Maintenance Planning (AQMP) process as follows:

a. Attend and participate in Regional Land Use Program Technical and Citizen Advisory Committee meetings;

b. Review, comment and be involved sufficiently in Regional Land Use Program milestones, 208, and AQMP products to lead to implementation; and

c. Approve and implement the final AQMP.

Upon motion of Director Grandsen, seconded by Director Miller, and duly carried, the foregoing resolution was approved on August 30, 1977.

TRIUNFO COUNTY SANITATION DISTRICT

By

Chairman, Board of Directors

ATTEST:

ROBERT L. HAMM, County Clerk,
County of Venture, State of California and ex officio Clerk of the Board of Directors thereof.

By

Deputy Clerk

I hereby certify that the annexed instrument is a true and correct copy of the document which is on file in this office.

Dated: 8/30/77

ROBERT L. HAMM, County Clerk
and Ex-officio Clerk of the
Board of Supervisors

By

Deputy County Clerk

Item TSD-3 a
8/30/77

ENTURA REGIONAL
OUNTY SANITATION DISTRICT

JOHN A. LAMBIE
CHIEF ENGINEER
GENERAL MANAGER

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May 10, 1977

TO: City Councils, Sanitary Districts, and Sanitation Agencies

FROM: Ventura Regional County Sanitation District and Ventura County Environmental Resource Agency

SUBJECT: "201" GRANTS CONDITIONS RELATED TO AIR QUALITY MAINTENANCE PLANNING

In response to many questions regarding State Water Resources Control Board (SWRCB) wastewater plant expansion "201" grant conditions, Ventura Regional County Sanitation District (VRCSD) and Environmental Resource Agency (ERA) staff have prepared this joint letter based upon their interpretation of existing federal and state statutes, guidelines and policies.

Wastewater treatment facilities are funded under Section 201 of the Federal Water Pollution Control Act of 1972. The Regional Sanitation District is currently preparing an areawide Waste Management Plan for Ventura County under Section 208 of the act, as this area has significant water quality degradation problems. The State Water Resources Control Board and the State Air Resources Control Board review the proposals for plant expansions in critical air areas for possible impacts on air quality. These impacts would result from the growth which may occur as a result of available utility capacity. Ventura County is required to prepare an Air Quality Maintenance Plant (AQMP) because it has been identified by the State and Federal Governments as an area having the potential to exceed National Ambient Air Quality Standards due to present air quality and projected air quality deterioration over the next ten years. Because of this status, 201 plans for wastewater plant construction are now being required by the SWRCB and EPA to be coordinated between the air and water quality planning. Grant conditions now require that, until the AQMP is completed, funding for plant expansion or upgrading will be limited to a plant capacity necessary to service anticipated growth as represented by E-O population forecasts for the next ten years. In addition, each affected public body (city, sanitary district, etc.) may be required by the SWRCB to adopt a resolution committing the public body to "participation" in the Air Quality Maintenance Planning process.

Mailing Address: P.O. BOX [illegible]

Following adoption of the AQMP and the 208 Waste Water Management Plan, these plans will be used by EPA and SWRCB to determine funding and permit requirements for future sewage plant upgrading or expansion.

The ERA has discussed the "participation" element with SWRCB and EPA. The requirement for "participation" in Air Quality Maintenance Planning means the following:

1. Attend and participate in Regional Land Use Program Technical and Citizen Advisory Committee meetings;
2. Review, comment and be involved sufficiently in Regional Land Use Program milestones, 208, and AQMP products to lead to implementation; and
3. Approval and implementation of final AQMP.

The SWRCB has indicated that failure to "participate" in Air Quality Maintenance Planning could result in the following consequences:

1. The SWRCB and EPA could refuse to provide grant funds for needed upgrades or expansions;
2. The SWRCB may initiate litigation requiring return of grant funds; or
3. The SWRCB may request the RWQCB to place flow limitations on the NPDES permit of the affected agency.

Because of the potential consequences, and EPA and State involvement in the current planning process, our respective agencies are concerned that the cities understand these conditions being imposed by the SWRCB, and take an active part in the AQMP planning process.

Should you have any questions regarding the above information, please call either of the undersigned.

Very truly yours,

John A. Lambie
Chief Engineer-General Manager
VRCSD

M. L. Koester
Director, ERA

JB:kmc

Bibliography

BIBLIOGRAPHY

This bibliography contains all major sources of information, data and interpretation of data which were utilized in the preparation of the Draft EIS.

It is organized by major information categories as follows:

- Water Quality, Hydrology, Ocean
- Air Quality, Meteorology, Climate
- Regional Planning, Land Use, Socio-Economics
- Recreation, Open Space, Visual Appearance, Fire
- Transportation
- History, Archaeology, Paleontology
- Noise
- Biological Resources
- Geology/Slope Stability
- Seismicity
- Soils
- Mineral Resources

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Persons Contacted: Los Angeles County Engineering Geology Section - Arthur Keene, Head Engineering Geologist; Dick Ramirez, Principal Engineering Geologist; James Padick, Principal Engineering Geologist, Malibu Area. U. S. Geological Survey, Menlo Park, California - Russell H. Campbell, Geologist. California Division of Mines and Geology, Los Angeles - Robert Hill, Geologist. David A. Phoenix, Registered Geologist, Consulting Geologist and Hydrologist.

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